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ABSTRACT

Designed to provide instructors and students with reliable and scientifically validated information about alcohol and other drugs, this curriculum guide presents lessons in six major areas: (1) drugs and traffic safety; (2) alcohol: what it is and how it works; (3) alcohol: use, abuse, and moderation; (4) drugs other than alcohol: types, uses, and effects; (5) drinking, drugs, and driving; and (6) alcohol, other drugs, the law, and insurance. The lessons are preceded by an introduction which provides course goals, the course description, suggestions for instructors, and suggestions for instructors with special needs students. Each lesson is further divided into specific objectives and provides content material, suggested learning activities, evaluation activities, and supplementary readings. Appended material includes lists of films, filmstrips, and other sources of materials; a drug classification chart; and the Ohio legislation chart. (LRA)

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DRIVER EDUCATION CURRICULUM GUIDE

Alcohol and Other Drugs

Ohio Department of Education

Division of School Finance

Driver Education Section

CE 020 730

FOREWORD

Traffic safety has become a major concern for all highway users. Each year highway accidents result in about 55,000 deaths. Over 50 percent of these fatal accidents involve drunk drivers. It is estimated that one in every 50 automobiles on the road is operated by an intoxicated driver. Although less evidence is available regarding use of drugs other than alcohol by drivers, it is known that a large portion of the population uses a wide range of drugs that have the potential to impair driving behavior.

The problem of a driver's use of alcohol and other drugs is serious, and various attempts have been made to deal with it. For instance, laws regarding drunk driving have been made more stringent and their enforcement stricter in order to get problem drinkers and drunk drivers off the road. Research is underway to find methods of testing for the presence of other drugs in drivers, and the effects thereof. Rehabilitation and other social services have been provided for those who need help. Despite these efforts the highway death toll remains one of the nation's worst tragedies.

To inform the public about the dangerous impact of alcohol and other drugs on traffic safety, various educational programs have been organized. Young drivers are the primary target of these efforts because they are involved in a large portion of accidents. Because of their lack of knowledge or understanding of what alcohol and other drugs can do to them, young, inexperienced drivers are prone to traffic accidents which could have been prevented.

The purpose of this curriculum guide is to provide instructors and students with reliable and scientifically validated information about alcohol and other drugs. This is based on the assumption that adequate knowledge of alcohol and other drugs, their effects on individuals, and their effects on the driving task can help reduce or prevent avoidable tragedies and make our highways safer.

Franklin B. Walter

Franklin B. Walter
Superintendent of Public Instruction

FEB 1 3 1980

PREFACE

The Ohio Traffic Safety Education Center (OTSEC), a project of The National Center for Research in Vocational Education at The Ohio State University, is funded by the Ohio Department of Highway Safety and monitored by the Ohio Department of Education, Division of School Finance, Driver Education Section. OTSEC was organized to provide assistance to the citizens and state departments of Ohio in five basic functional areas: research, development, service, education, and dissemination. These areas to a large extent parallel the functional areas of the National Center.

Within the five areas, driver and traffic safety education projects at OTSEC have been broad in scope. They have included such activities as developing driver education curricula for use in public schools, publishing a traffic safety newsletter for distribution throughout the state, developing a driver education information package for local school boards, organizing and operating a driver and traffic safety information center, conducting workshops in motorcycle safety and driver education for the handicapped, and many others.

The outcome of OTSEC's research, development, and education programs has been heightened awareness of driver and traffic safety practices on the part of Ohio's citizens. By furthering this awareness, OTSEC has made and will continue to make a positive impact on traffic safety in Ohio.

Robert E. Taylor
Executive Director
The National Center for
Research in Vocational
Education

ACKNOWLEDGMENTS

The staff of the Division of School Finance, Driver Education Section, express appreciation to the participants in the Advanced Driver Education Workshop at the University of Cincinnati.

This advanced workshop on alcohol and other drugs education, sponsored by the Ohio Department of Education with funds made available by the National Highway Traffic Safety Administration, studied the design and selection of behavioral objectives, human factors (learning, perception, risk acceptance, information processing, vision, motivation), current educational research on alcohol and other drugs, existing instruction units in the United States and Europe, and cost effective traffic safety countermeasures.

At the culmination of this workshop, the following Ohio school teachers and supervisors wrote the first draft of this guide under the direction of Harry Skiff, Workshop Director, and William Becker, Assistant.

Lynn Adams, Cincinnati
Tom Chambers, Cincinnati
David Daniel, Cincinnati
Nancy Deiters, Cincinnati
Jerry Finkes, West Chester
Paul Glassman, Cincinnati
John Gutzwiller, Cincinnati
Edward Hitchens, Cincinnati
Tom Hurley, Cincinnati
Frank Hux, Cincinnati
Dick Krieger, Cincinnati
David Richards, Cincinnati
Robert Schoenhoff, Cincinnati
Dana Stutzman, Cincinnati
Jan Worley, Cincinnati

The Driver Education Section especially acknowledges the expertise and assistance of the following organizations and individuals in the development of the curriculum guide:

RESEARCH AND WRITING

The National Center for
Research in Vocational Education
The Ohio State University
Robert E. Taylor, Executive Director

Dallas G. Ator, Associate Director

Ohio Traffic Safety Education Center
Barbara K. Wright, Project Director

Catherine C. King-Fitch and Bettina A. Lankard
Staff Writers

FIELD TESTING

Ronald Schuster, Superintendent
Barry Caruso, Instructor
Girard City Schools

Dean Mizer, Superintendent
Bob McKinney, Instructor
Louisville City Schools

James Leedy, Superintendent
Raymond Young, Instructor
Marlington Local Schools

Edward Maher, Superintendent
Les Wojciechowoski, Instructor
Jackson Local Schools

Kenneth Bishop, Superintendent
Gary Whitaker, Instructor
Washington Local Schools

Gordon Rodeen, Superintendent
David Richards, Instructor
Rocky River City Schools

CRITICAL EVALUATION

Robert Combs
Ohio Automobile Club

James Enyart
Gallia Academy High School

Marla Hunt
Northwest Local Schools

Joe Jordon
National Center for Research in
Vocational Education

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INTRODUCTION

GOALS OF THE COURSE

The aim of the course is to provide accurate information about alcohol and other drugs—their nature; their impact on traffic safety; the psychological and physiological effects of their use; their effects on the driving task; the costs of abusing them; and laws regarding alcohol, other drugs, and driving. Traffic safety educators agree that, to be effective, an educational program about alcohol and other drugs should not impose particular standards or values on learners. Rather, the students should be treated as rational individuals and be encouraged to make decisions for themselves regarding the use of alcohol and other drugs. Nevertheless, it is necessary to equip learners, especially young adults, with all the information they need in order to make intelligent decisions about alcohol and other drug use. Consequently, the following general goals are suggested as desirable outcomes of this course.

Knowledge Development (Cognitive Domain)

1. Students will acquire accurate information about alcohol and other drugs, such as their nature and properties; their role and place in society; their social, economic, and psychological impact on individuals; and their psychological and behavioral effects on the individual's driving ability.

2. Students will gain knowledge of the laws regarding alcohol and other drug use and driving.

3. Students will gain knowledge of the factors that prompt people to use alcohol and other drugs and ways to avoid dependency on them.

4. Students will develop personal guidelines for responsible use of alcohol and other drugs in relation to safe driving.

Attitude Development (Affective Domain)

1. Students will develop responsible attitudes toward the use of alcohol and other drugs based on the knowledge acquired.

2. Students will develop responsible attitudes toward safe driving.

3. Students will develop a respect for traffic laws as a result of their knowledge of the laws.

Behavior Development (Psychomotor Domain)

1. Students will avoid driving while under the influence of alcohol or other drugs.

2. Students will avoid riding with drivers who are under the influence of alcohol or other drugs.

3. Students will use strategies to prevent drivers who have been drinking or taking drugs from driving.

COURSE DESCRIPTION

The course consists of six lessons:

1. Drugs and Traffic Safety
2. Alcohol: What It Is and How It Works
3. Alcohol: Use, Abuse, and Moderation
4. Drugs Other Than Alcohol: Types, Uses, and Effects
5. Drinking, Drugs, and Driving
6. Alcohol, Drugs, the Law, and Insurance

These lessons should be used in sequence to assure the continuity of the content.

The same format is used in each lesson. The components of that format are explained below.

Lesson Goal

A lesson goal states, in broad terms, what students should accomplish as an outcome of the lesson. It provides a framework for identifying specific behavioral outcomes expected of the students.

Objective

Objectives are desired instructional outcomes resulting from participation in the suggested learning experiences. Objectives describe observable behaviors indicating the desired cognitive, affective, or psychomotor change.

Content

Basic information relating to the instructional objectives of the lesson is provided. The instructor may use the information to prepare and conduct the lesson. However, acquiring additional information on particular topics may be necessary and is recommended. (Refer to supplementary readings at the end of each lesson for sources.)

Suggested Learning Activities

Learning activities are suggested for each lesson. Each activity is described in terms of the students' role and the instructor's role. Learning activities have been included with the assumption that students should be active in the learning process and, therefore, should be encouraged to participate in as many activities as possible. Activities are provided to cover all instructional objectives specified for the lesson so that the instructor can assure thorough

coverage of the content. Depending on availability of instructional time, materials, or resource persons, or on other factors, the instructor should select those activities that fit his or her course goals. The instructor should feel free to add to or modify the activities to suit local situations. Suggestions for adapting activities for students with special needs are provided on pages 5-6.

Evaluation

The suggested evaluation techniques provide guidelines for assessing the extent to which the students achieve the objectives of the lesson and for determining areas in which the students have difficulties so that corrective actions can be taken. The instructor is encouraged to develop new items or instruments as necessary to assess achievement on activities selected for use in the course.

Supplementary Readings

A brief annotated bibliography of related resources is provided at the end of each lesson. The lists are not exhaustive; rather, these resources have been selected because they are relevant to the lesson under discussion and can be obtained fairly easily. In a few cases, excerpts from these resources are included in these lists for the instructor's convenience. The instructor is encouraged to broaden his or her understanding of each lesson topic by reading some of these materials. Some are also appropriate for use by students as resource materials.

Modules

Each lesson is divided into modules (A, B, C, D, and so on) containing one or more objectives and a portion of the lesson content. Each module is also keyed to several of the suggested learning activities and evaluation items for the lesson. This arrangement enables the instructor who has already covered portions of the content or who can use only part of the curriculum because of inflexible time constraints to select integral parts of the lessons without needing to reorganize the material and with assurance that content, learning activities, and evaluation strategies reinforce the stated objective. For example, an instructor who intends to focus in Lesson 3 on moderation in alcohol use (but not on extent of its use or motivation for decisions about its use) might select:

- Module C. Costs of Alcohol Abuse,
- Module D. Guidelines for Moderate Drinking,
- Learning Activities 1, 3, 6, 7, 8, and 9, and
- Evaluation items 3, 4, and 5.

By selecting entire modules the instructor knows that the content, learning activities, and evaluation strategies reinforce the objectives stated for Modules C and D.

Films

Films are suggested (by title only) in a number of lessons. These films are described in Appendix A, "Resources." Descriptions include title, a brief description of the content, length, sources and procedures for obtaining the film, and suggestions for use. It is recommended that the instructor read the descriptions of the films carefully. Each film should be previewed before inclusion in a specific module or lesson. This will assure that the content of the film fits the objectives of the lesson and that it can be used to generate discussion and deepen the students' understanding of the lesson content as planned by the instructor.

SUGGESTIONS FOR INSTRUCTORS

1. Adjust time to fit lessons.

Generally, each lesson may require about 2 hours if used in its entirety (a total of 12 hours). This includes time for presentation of a film and for conducting learning activities and evaluation. By carefully selecting among the learning activities in some lessons, or by selecting some modules and not others, these lessons can be completed in approximately 1 hour (or less). On the other hand, the instructor may find it desirable to spend up to 3 hours on certain lessons. Therefore, depending on the time and emphasis the instructor wishes to give, *Alcohol and Other Drugs* could require from 6 to 18 hours.

2. Emphasize attitude development as well as knowledge acquisition.

An understanding of the properties and effects of alcohol and other drugs on human beings is important. Just as important, however, is the development of responsible attitudes toward use of alcohol and other drugs and safe driving. Therefore, in teaching the course, the instructor can help the students clarify their own values and attitudes toward use of alcohol and other drugs and set the stage for the students' development of responsible attitudes toward the use of alcohol and other drugs in relation to driving based upon facts and information obtained from the course.

3. Avoid scare tactics.

The decision whether to use alcohol and other drugs is a personal matter. Scare tactics may evoke negative attitudes among students which may block their effective and open communication with the instructor. Therefore, the instructor should present scientifically validated information about the physiological, psychological, and socioeconomic effects of alcohol and other drugs and provide a forum for discussion of this information. The students should be free to decide for themselves which actions are best for them.

4. Be well-informed about alcohol and other drugs yourself.

Be honest in discussing students' concerns. Read supplementary readings and other materials cited in the bibliographies. Secure the services of specialists or experts in the field—police officers, doctors, members of civic groups, and others.

5. Respect student opinions.

Listen to opinions, ideas, and concerns expressed by the students. Controversial issues regarding drug and alcohol use can be examined better when the discussion is based on mutual understanding. The students must feel that their opinions are valued by the instructor. Only through unbiased two-way communication are students likely to entertain any ideas or values except those they bring to the course.

6. Build rapport with the students.

Encourage student input and participation. If the students feel that they are an integral part of the program, they will participate and contribute more fully. Consequently, the course may have a better chance of achieving its objectives.

7. Use a variety of instructional materials.

Whenever appropriate, use films, filmstrips, posters, fact sheets, and other media to enhance the lessons. These materials will help keep the students' attention on the subject and make the lessons more interesting.

8. Employ various instructional methods.

Different teaching strategies work well for different kinds of lessons. Choose strategies that will fit your objectives for particular lessons. Among techniques that are suggested in the lessons are film presentation, group discussion, lecture, debate, surveys, individual studies, case studies, role play, and gaming.

SUGGESTIONS FOR INSTRUCTORS WITH SPECIAL NEEDS STUDENTS

If mildly mentally handicapped (MMH) students or others with special needs seem to have difficulty with activities presented in this curriculum guide, the following general techniques may be helpful:

1. Divide the activity into small, sequential experiences or parts.

2. Provide short, dynamic experiences within an activity that have meaning, purpose, and interest to the learner.

3. Provide experiences that are appropriate to the learner's maturity level.

4. Design activities and experiences that progress from the simple to the complex and from the concrete to the abstract.

5. Give experiences that require the learner to use his or her senses, emotions, and motor functions.

6. Be sure that the activities and experiences chosen are useful and based on life situations.

7. Relate the current experiences to the learner's previous experiences.

8. Provide the learner with successful experiences.

9. Provide the learner with many varied experiences.

10. Help the learner understand how experiences are interrelated.

11. Help the learner see how interrelated experiences relate to the goal.[1]

In addition, the following adaptations to specific learning activities may be useful:

1. Films. Carefully preview films to be sure that the content level is appropriate. Give students questions to answer or points to look for before showing the film. Stop the film in convenient spots and discuss the main idea presented. Show only a portion of a film. Summarize the film in a follow-up discussion.

2. Collage. Added guidance may be necessary to assist in staying with the topic presented.

3. Surveys. It may be necessary for the teacher to assist students in compiling the information gathered by their surveys.

4. Working in teams or small groups. Carefully choose students who will work effectively in a team with the MMH student. They should provide continual reinforcement and guidance.

5. Discussion. Summarize the discussion to help students pick out the necessary information that they should retain.

6. Guest speakers. Help students develop good questions for the speaker.

7. Interviews. Assist students in preparing questionnaires and record keeping forms to be used in the interviews.

8 Worksheets. The MMH student may require special help and guidance on worksheets. Teaming of the students may give the necessary assistance required. The special education teacher may be able to help with vocabulary and mathematics.

9. Evaluation. If possible, arrange for oral evaluation of the MMH student, especially if the written evaluation does not prove effective.

For additional teaching strategies which may be used with students who have mild mental, sensory, and physical handicaps, see *Driver Education for the Handicapped*. Columbus, Ohio: Department of Education, 1979.

[1] *The Slow Learning Program in the Elementary and Secondary Schools*, Cincinnati Public Schools, p. 18.

Lesson 1

Drugs and Traffic Safety

Lesson Goal: Students will develop an understanding of the nature of drugs and their impact on traffic safety.

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A. Definition

Objective: Students will identify the elements found in various interpretations of the word "drug" to develop their own definition of "drug."

Students will identify the major types of substances included in their definition of drugs.

Content:

There is no single definition for the word drug that is accepted by everyone. By many people, the word is commonly used to mean medicines, narcotic substances, or both. The World Health Organization, by contrast, defines a drug as "any substance that, when taken into a living organism, may modify one or more of its functions." This definition, taken literally, could include not only medicinal preparations and narcotics, but pollutants in the air, air itself, food, food additives, and many other substances that are either essential to life or beyond the individual's ability to control their intake.

Because of such differences in definition, estimates of the number of drugs in use today range from 5,000 to 20,000 depending on the definition used. A working definition—perhaps one that lies between these broad and narrow definitions—is needed as a basis for discussing drugs in relation to traffic safety.

In this course of study, the following definition or a similar one should be used:

A DRUG IS A CHEMICAL SUBSTANCE (EXCEPT FOOD, WATER, AND AIR) THAT, WHEN TAKEN INTO THE SYSTEM, WILL ALTER THE NORMAL FUNCTION OF THE BODY OR MIND, OR BOTH.

The substances that fall within this definition may be grouped in four categories:

Over-the-Counter Drugs

Common drugs used to treat or prevent symptoms of medical conditions are usually sold over the counter, meaning a prescription is not required to obtain them. These drugs (for example, aspirin, cold capsules, and cough medicines) are packaged with labels that indicate recommended dosages.

Prescription Drugs

Medicinal preparations that can be obtained legally only with a doctor's prescription are called prescription drugs. These drugs are usually more powerful than over-the-counter drugs and are intended to be prescribed only after careful analysis of the patient's system, reaction to medication, and other health factors.

Street Drugs

Some drugs are purchased illegally from sellers "on the street," or "pushers." Many of these illegally procured drugs are legitimate drugs that can be purchased legally and in safe dosages through a doctor's prescription if there is a medical need. Others (for example, heroin) are illegal under any circumstance because they have no legitimate medical usage and they present real dangers to the individuals who use them.

Other Substances

This group includes legal, nonmedical substances that do not meet any of the above definitions, but which are used by a large number of people and which produce identifiable chemical responses in their bodies. The most common substances in this group are beverages, such as alcohol, coffee, tea, and cola drinks; tobacco; and volatile chemicals (glue, paint thinner, and others) whose fumes are inhaled.

Of the last group, alcohol will receive emphasis in the course of study; its impact on traffic safety has been clearly documented. Glue sniffing will also be addressed. While the other substances in this group may also affect the driver, their impact has been less clearly identified or their use is not considered a significant problem.

All substances in the above categories except alcohol are referred to in this guide as "other drugs" or "drugs other than alcohol."

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 1: 1, 2, and 3 (pp.12-14).

Evaluation:

Use evaluation items 1 and 2 (p. 14).

B. Relationship of Drugs and Traffic Safety

Objective: Students will be able to describe in general terms the known relationship of alcohol and other drugs to traffic safety.

Content:

All drugs affect the user. The effects of a drug are a function of the dosage—the amount taken—and the physiological and psychological state of the user. The relationship of dosage and effects has been documented for alcohol, which undergoes a unique enzyme reaction in the body. Further, the amount of alcohol in a person's body can be measured accurately. Therefore, the impact of alcohol use on an individual's driving and on traffic safety in general can be demonstrated.

Alcohol is the proven cause of many highway accidents. The combination of alcohol and other drugs is also the known cause of many deaths, particularly those that are traffic related.

However, the effects of drugs other than alcohol on the body are much more complex and more difficult to quantify or predict. Methods of identifying and measuring drugs other than alcohol in drivers' bodies are not well enough developed to provide the same kind of evidence about their impact on traffic safety. Moreover, few studies of the effects of drugs other than alcohol have focused on the driving population, so traffic related data can only be inferred in most cases.

Research does indicate that sizable segments of the driving population use a wide range of drugs that have the potential to impair driving behavior.

The following statements illustrate the growing body of knowledge about the effects of alcohol and other drugs on traffic safety.

Alcohol

- Approximately 55,000 highway deaths are recorded each year; more than half are alcohol related.
- Approximately 60 percent of alcohol-related fatalities involve people aged 16 to 24.
- One automobile in 50 is operated by an intoxicated driver.
- Young people are disproportionally involved in motor vehicle crashes. They make up about one-fifth of the motoring public, yet they are involved in about one-third of all traffic accidents and fatalities.[2]
- Since 1970 there has been a 28 percent increase in alcohol-related accidents involving teen-age drivers.

[2]*Teacher's Guide to Alcohol Counter Measures*. American Automobile Association, 1976, p. 23.

Alcohol and Other Drugs

- About one-half of all fatal crash victims who are found to have drugs in their system also have enough alcohol to impair their driving ability.

- In a 1977 Gallup poll, teen-agers were asked:

  Almost half of the road accidents and deaths involve drivers under the age of 22. Why do you think they are involved in so many accidents?

  The majority said they thought drinking, drugs, or reckless driving was the cause.

Drugs Other Than Alcohol

- Approximately 11 to 15 percent of accident-involved drivers have taken a drug other than alcohol prior to the crash.

- Young drivers are more likely to use illicit drugs, at least on an experimental basis, than older drivers.

- A National Institute of Alcohol and Drug Abuse survey of high school seniors in 1977 showed that 6 out of 10 had used an illicit drug and that 60 to 80 percent of marijuana users indicated that they sometimes drove while "high."

- Various studies of users of narcotics, dangerous drugs, marijuana, barbiturates, tranquilizers, and stimulants have shown these users to have higher accident and violation rates than the general population.

It is clear that many drugs, alcohol included, have the ability to impair a driver's performance. However, because of the differences between the effects of alcohol and other drugs on the body and because of the difference in the state of knowledge about the two topics, the nature and effects of alcohol and those of other drugs will be examined separately in this guide.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 1: 4, 5, and 6 (pp. 12-14).

Evaluation:

Use evaluation item 3 (p. 14).

Suggested Learning Activities for Lesson 1

Students

1. Developing a Definition

   Working as a group or individually, classify each of the substances as a drug or "nondrug." If done individually, compare and discuss the resulting classifications.

   Based on the final drug and nondrug lists, develop a definition of "drug."

Teacher

1. This activity should be used before "drug" is defined.

   Provide a list of substances such as the following to the class.

heroin	secobarbital (Seconal)
hamburger	cough syrup
diazepam (Valium)	cocaine
soft drinks	rice
coffee	peanuts
LSD	glue
"speed"	eggs
milk	penotobarbital (Nembutal)
"uppers"	paint thinner
sinus preparations	beer
candy	"goof balls"
aspirin	corn chips
flour	dextroamphitamine (Dexedrine)
marijuana	cigarettes
orange juice	whiskey
wine	
water	

   Write "Drugs" and "Nondrugs" on the chalkboard. Ask students to classify each substance in the list under one of the two headings.

   Help students analyze the results and develop a definition of "drug." Encourage them to consider the definition given in Module A (p. 8).

Students	Teacher
2. Major Types of Drugs Categorize the substances that were classified in Activity 1 as drugs according to how they are obtained. By this means, identify major categories of drugs.	2. Help students to categorize the drugs. Encourage them to consider over-the-counter, prescription, and street drugs, and other nonmedical substances bought legally.
3. Film and Discussion Watch and discuss the film. Does the film seem to be based on a definition of "drugs" similar to the one you developed?	3. Show any of the following films: • *Are Drugs the Answer?* • *Hey Baby* • *Perfect Drug Film* • *What Do Drugs Do?* Lead discussion of the film.
4. Discussion Discuss the statistics showing the relationship between alcohol, other drugs, and traffic safety. What do these facts mean to you as a potential driver? What do they mean to you as a potential driver sharing the road with intoxicated drivers?	4. Present the statistics in Module B and pose discussion questions.
5. Poster Prepare a poster or information sheet presenting the facts in Module B. Place it where other students can read it.	5. Offer help in obtaining poster materials. Students may be divided into two or three groups to make posters specifically about alcohol, other drugs, or both.

Students	Teacher
6. Guest Speaker Prepare questions regarding alcohol, other drugs, and traffic safety. Discuss them with the speaker.	6. Invite a member of the local police, state highway patrol, or Department of Highway Safety to present local or state statistics on accidents involving alcohol or other drugs. Help students prepare questions for the speaker. Examples: What figures are available for our city or state regarding accidents involving alcohol and other drugs? Are specific figures available for young drivers? How do these compare with figures from other cities or states? How is this information collected?

Evaluation for Lesson 1

1. Ask students to write a definition of a drug.
2. Have students write a paragraph discussing the impact of alcohol and other drugs on traffic safety, with emphasis on the young driver.
3. Ask students to explain (a) the differences among ways various drugs are sold and (b) the legal restrictions governing the sales of various drugs.

Supplementary Readings for Lesson 1

1. Beaumont, George. "Rx Drugs and Driving." *Traffic Safety* 79 (February 1979): 14-15.

   A brief discussion of prescription drugs, safety, and the law.

2. Indiana University. *Drugs and Driving: A Research Review*. Washington, D.C.: U.S. Department of Transportation, NHTSA, 1975.

   An extensive, methodical report and discussion of drugs and driving.

3. Ohio State Department of Education, Lima Public Schools, Dayton Public Schools, and Educational Research Council of America. *Drugs, Alcohol, Tobacco, & Human Behavior*. Cleveland, Ohio: Educational Research Council of America, 1971.

   This program about drugs, alcohol, and tobacco includes teacher and student materials. They provide an objective approach to teaching about use and abuse of these drugs.

4. "Teens, Drugs, and Alcohol on the Road Again." *Journal of American Insurance* (Fall —Winter 1978): 1-5.

   A brief presentation about the dangers associated with teen-age drinking, drugs, and driving.

5. University of Wisconsin. *Drug Use and Highway Safety: A Review of the Literature*. Washington, D.C.: U.S. Department of Transportation, NHTSA, 1971.

   A thorough, balanced review of literature about the impact of drug use on highway safety.

Lesson 2

Alcohol: What It Is and How It Works

Lesson Goal: Students will develop an in-depth understanding of the nature and properties of alcohol as a drug and its physical and behavioral effects on the human body.

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A. What Is Alcohol?

Objective: Students will describe the chemical and medical nature of alcohol.

Content:

Chemical Nature

Alcohol is a liquid which is most commonly found in the forms of *methanol* (CH_3OH) or wood alcohol, *proponol* which is isopropyl (C_3H_8O) or rubbing alcohol, and *ethanol* (CH_3CH_2OH) or grain alcohol.

Methanol alcohol is found in plants and is a product of wood distillation. It is a poisonous liquid which, if taken internally, can cause blindness and death. Its primary use is as a solvent and as an element in automobile antifreeze and other products.

Proponol alcohol is also a poisonous liquid. It is used externally, often to cool body surfaces and thus reduce fever.

Ethanol alcohol—purified for drinking—is the main substance in alcoholic beverages, such as beer, wine, and distilled liquor. It is made from fermenting fruit, grapes, or grains.

Of these forms of alcohol, ethanol is the only one that is suitable for drinking and that is called "alcohol."

Medical Nature

Alcohol is a mind-altering drug, the origin of which can be traced to prehistoric times. It was first classified as a drug. While it did not cure diseases, it did reduce emotional distress and physical aches and pains. These effects are not surprising since alcohol is a depressant. It acts on the central nervous system and brain and can have a mild tranquilizing effect on the user.

Today alcohol is one of the most widely used drugs. It is also the most abused, primarily because it is legal and readily available and because its use is socially acceptable. When used excessively, alcohol can impair a person's physical and emotional health.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 2 : 1, 2, and 3 (pp. 34-38).

Evaluation:

Use evaluation item 1 (p. 49).

B. How Is Alcohol Content Determined?

Objective: Students will estimate the amount of alcohol in different kinds of alcoholic beverages.

Content:

Percentage of Alcohol

The most commonly used alcoholic beverages are beer, wine, and distilled liquor. Beer is made by fermenting cereal grains; wine is produced from fermenting grapes or other fruits; hard liquor is produced through a distilling process. (Distilling occurs when a solution of alcohol in water is boiled, resulting in a liquid that contains a greater concentration of alcohol.) These types of alcoholic beverages contain different percentages of alcohol:

Beverage	Percentage of alcohol content
Beer	4% to 5%
Dinner wine (chablis, burgundy, rosé, others)	10% to 12%
Dessert wine (sherry and others)	17% to 20%
Distilled liquor (gin, whiskey, and others)	40% to 50%

Proof

Some alcoholic beverage labels list the "proof" of alcohol rather than the percent. These two terms (proof and percent) are not interchangeable. The proof of an alcoholic beverage is determined by doubling the percent of the alcohol it contains. To compare the alcoholic content of various alcoholic beverages, it is important to convert the alcohol content to a common measurable factor. For example, a 20 percent wine contains one-half as much alcohol as an 80 proof whiskey, not one-fourth as much.

Percent and Proof Equivalents

Listed below are the equivalent percentages and proofs for four common alcoholic beverages.

Beverage	Percentage of alcohol	Proof
Beer	= 6 to 12 proof	3% to 6%
Dinner wine	= 20 to 24 proof	10% to 12%
Dessert wine	= 34 to 40 proof	17% to 20%
Whiskey	= 80 to 100 proof	40% to 50%

Servings

Just as the alcohol content in beverages varies, the amounts in which these alcoholic beverages are commonly served also vary. Each of the following typical servings contains slightly more than one-half ounce of alcohol. This is determined by multiplying ounces by percentage, as illustrated below.

Serving	Size and percentage	Amount of alcohol
A bottle of beer	12 oz. of 5% alcohol	.60 or 6/10 oz.
A glass of dinner wine	5 oz. of 12% alcohol	.60 or 6/10 oz.
A shot of whiskey (alone or with a mixer such as water or soda)	1½ oz. of 40% alcohol	.60 or 6/10 oz.

One can see from this comparison that a person drinking beer does not necessarily take in less alcohol than one drinking whiskey because beer is usually served in larger quantities.

Suggested Learning Activities:

From Suggested Learning Activities for Lesson 2, use activity 4 (pp. 34-38).

Evaluation:

Use evaluation item 2 (p. 49).

C. How Is Alcohol Absorbed into the Body?

Objective: Students will explain how alcohol is absorbed and measured in the bloodstream (by Blood Alcohol Concentration, or BAC).

Content:

Alcohol proceeds through the digestive system in a unique manner, differently from any other beverage, food, or drug. Alcohol is not digested; it is absorbed through the stomach and small intestines directly into the bloodstream. Once the alcohol enters the circulatory system, the heart's pumping action transports this drug along the bloodstream through the liver to the brain and other organs of the body.

As the circulating alcohol passes through the liver, the body rapidly eliminates about 10 percent of it through the kidneys, sweat glands, and lungs. Because alcohol evaporates in air that is breathed out of the lungs, it is possible to smell alcohol on the breath of someone who has been drinking. This indicates how quickly and in what an unaltered state alcohol enters the bloodstream.

The remaining 90 percent of the alcohol concentrated in the bloodstream is oxidized (mixed with oxygen and eliminated), mostly by the liver, at the rate of .015 percent an hour. When alcohol is consumed at a faster rate than the rate at which it is oxidized, the drug accumulates in the blood.

The percentage of alcohol in the bloodstream is measured in terms of the Blood Alcohol Concentration (BAC). BAC is expressed as the amount of alcohol in 100 cubic centimeters of blood. A typical drink (about one-half ounce of alcohol) will usually produce a BAC of .03 percent in a person weighing 110 to 140 pounds. Since .015 percent (or half the .03 percent BAC) is oxidized each hour, all the alcohol will be oxidized after two hours. So, after one typical drink, there is alcohol circulating in the blood for about two hours.

After consuming two drinks in a hour, the average person will have a BAC of .06 percent, which will require four hours to oxidize. After three drinks, the same person will have a BAC of .09 percent, which will require six hours to oxidize.

Because the increased concentration of alcohol in the bloodstream greatly affects a person's ability to function, a person with a BAC of .10 percent is legally defined as intoxicated.

Suggested Learning Activities:

From Suggested Learning Activities for Lesson 2, use activities 5, 6, and 7 (pp. 34-38).

Evaluation:

Use evaluation items 3 and 4 (p. 49).

D. How Does Alcohol Affect Body Functions?

Objective: Students will identify the three layers of the brain and describe the functions associated with each of these areas.

Students will identify the brain functions affected at various levels of Blood Alcohol Concentration.

Students will formulate opinions about alcohol use in relation to traffic safety after receiving information about the effects of alcohol.

Content:

While prolonged excessive use of alcohol can interfere with the functions of the digestive and circulatory systems, the most immediate and observable effects of alcohol in the bloodstream are caused by changes in the functions of the central nervous system, primarily the brain.

As alcohol is carried to the various organs of the body, it is absorbed into these organs in proportion to the amount of water each organ contains. Because of the high concentration of blood (and therefore water) in the brain, alcohol affects this organ first. To understand how alcohol affects the brain and produces certain behaviors, one must first be familiar with the structure and functions of the brain.

Structure and Functions of the Brain

The brain is organized into three hierarchical layers (see illustration 2A):

(1) the central core

(2) the limbic system

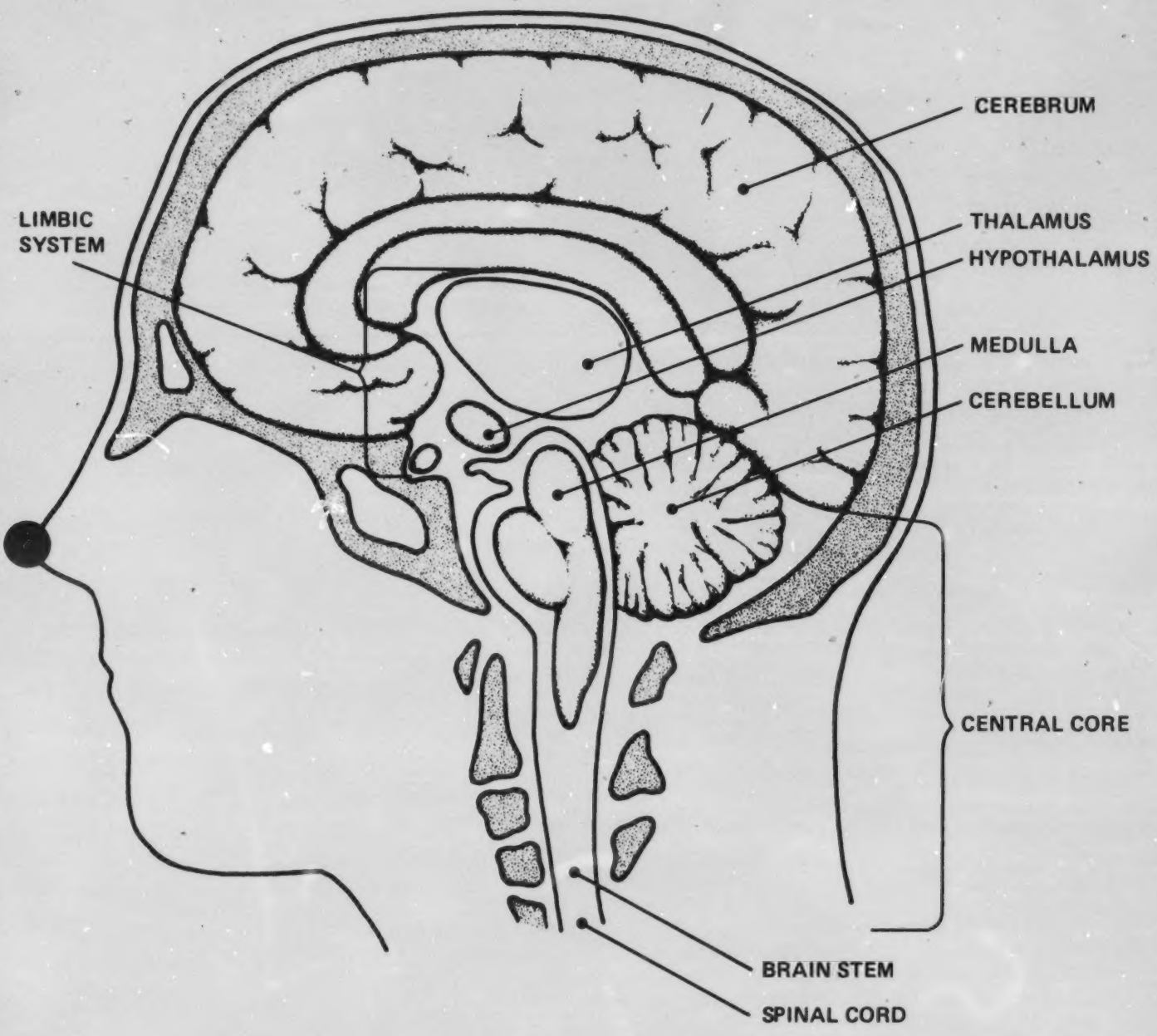
(3) the cerebrum.

Blood travels through the central core and limbic system to the highest, most complex brain center: the cerebrum. The effects of alcohol are first felt in this area.

The Cerebrum

The cerebrum, the largest part of the brain, is covered by a layer of gray matter called the cerebral cortex. It is in the cerebral cortex that complex mental activities take place.

2A. STRUCTURE OF THE BRAIN



In analyzing the cerebral cortex, researchers have found that different brain functions and activities seem to be localized in our different areas called lobes. The lobes are:

(1) frontal lobe

(2) parietal lobe

(3) temporal lobe

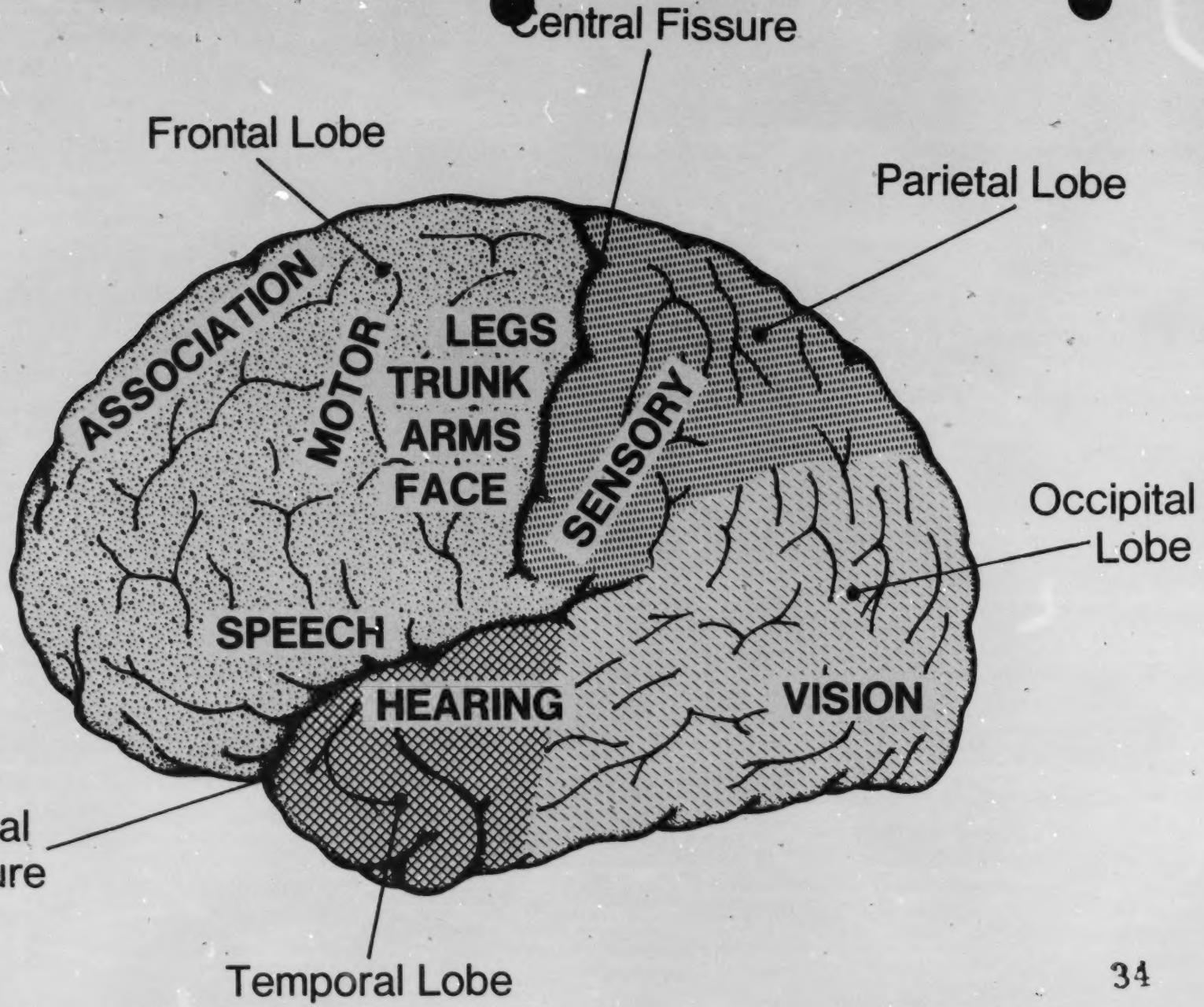
(4) occipital lobe

As illustrated in illustration 2B, each of these lobes is in one of the two cerebral hemispheres (the right and the left) in the cerebrum. The parietal and frontal lobes are separated by the lateral fissure.

The brain function areas in the cerebral cortex include the following:

Area	Location	Function
Association	Frontal lobe, temporal lobe	Controls thought processes such as learning, memory, reason, and judgment.
Motor	Frontal lobe along central fissure	Controls body movement; affects trunk, arms, lips, and face.
Sensory	Parietal lobe, directly across from motor area	Controls sensory awareness: feelings of touch—heat, cold, and pain.
Language	Frontal lobe, just above lateral fissure	Controls speech. Usually the speech function is located in the left hemisphere of the cerebrum.
Auditory	Temporal lobe, just below lateral fissure	Controls hearing.
Visual	Occipital lobe	Controls vision.

2B


Central Fissure
Frontal Lobe
Parietal Lobe
ASSOCIATION
MOTOR
LEGS
TRUNK
ARMS
FACE
SENSORY
Occipital Lobe
SPEECH
HEARING
VISION
Lateral Fissure
Temporal Lobe

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The Limbic System

When additional alcohol is consumed, thereby increasing the BAC, the alcohol affects the next layer of the brain, the limbic system, located below the cerebrum. The functions regulated in the limbic system include:

(1) programming of certain sequential activities

(2) control of emotions

(3) respiration

(4) heart rate.

The Central Core

As the concentration of alcohol in the bloodstream increases, the alcohol affects the central core of the brain which consists of several different structures with various functions:

Hypothalamus	Controls different types of motivation involving eating, drinking, and sleeping. The hypothalamus also controls feelings of pleasure, pain, rage, and other emotions. Maintains body temperature.
Thalamus	Functions as a relay station between the lower parts of the central nervous system and the higher centers of the brain. To some extent, the thalamus controls sleeping and waking.
Cerebellum	Controls motor coordination and balance.
Medulla	Controls such vital body functions as automatic reflexes of breathing and coughing.
Brain stem	Contains the nerve fibers that run between the spinal cord and the brain. The brain stem controls vital body functions of breathing, maintenance of body temperature, and heart rate.

As alcohol accumulates in the bloodstream, it has a progressively depressing effect on the parts of the brain just described and on their functions. Illustration 2C and the accompanying chart show the brain functions affected at various levels of Blood Alcohol Concentration and describe some of the behaviors exhibited by drinkers at each of the levels.

Suggested Learning Activities:

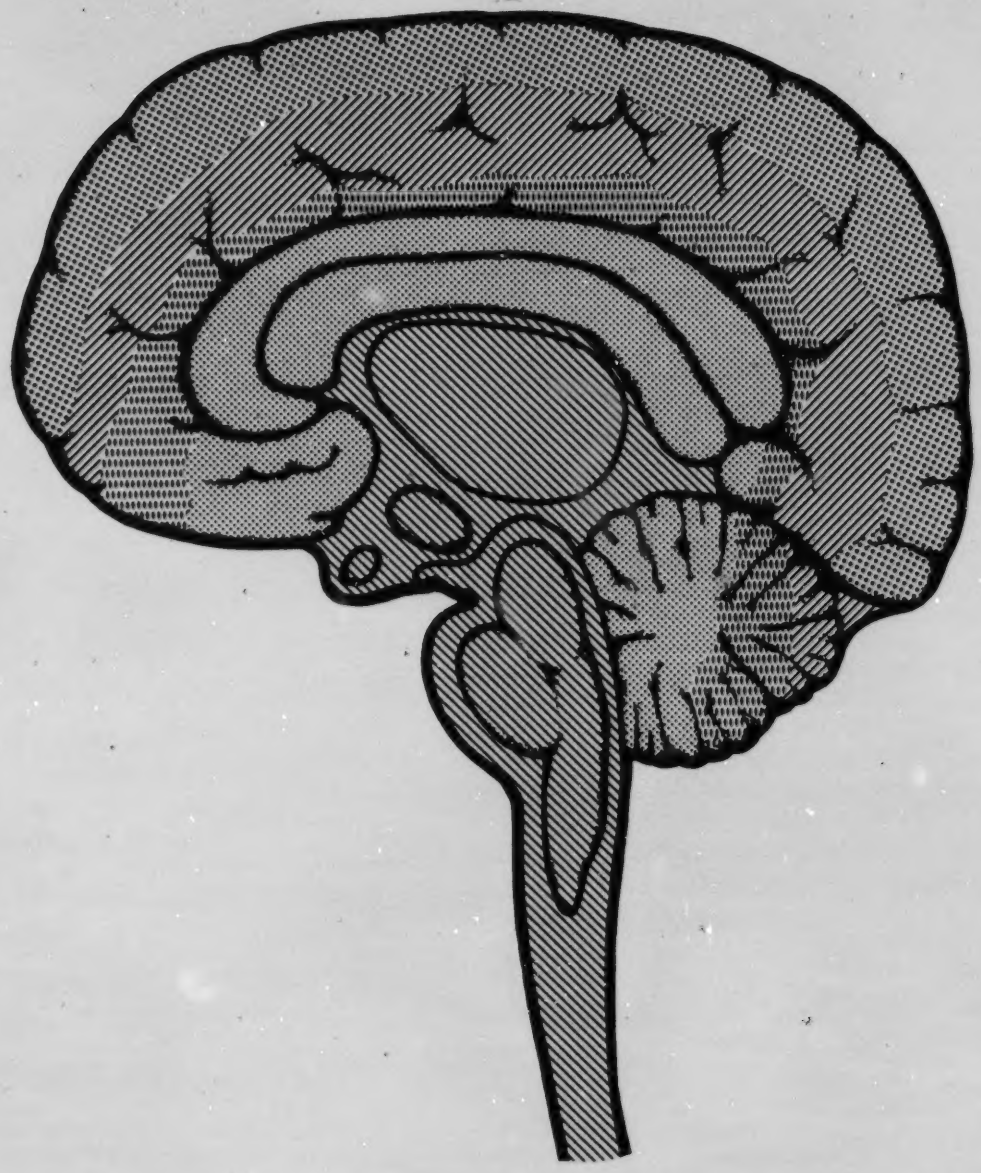
Select from Suggested Learning Activities for Lesson 2: 8, 9, and 10 (pp. 34-38).

Evaluation:

Use evaluation items 5, 6, and 7 (p. 49).

2C

.02% to .05%
.06% to .10%
.12% to .15%
.3% to .4%
.5%



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EFFECTS OF ALCOHOL ON THE BRAIN

Amount of alcohol	BAC	Areas of brain progressively affected	Functions affected	Effects or symptoms
2 drinks in one hour	.02% to .06%	association area of cerebrum	reason, judgment	dizziness, less inhibited behavior, over-estimation of skills, less sound judgment, slower reaction time
2 to 3 drinks in one hour	.06% to .10%	most of cerebrum	judgment, reason, senses, motor coordination, vision, speech	slurring of speech, blurring of vision, loss of coordination (including those skills needed for driving)
4 to 5 drinks in one hour	.12% to .15%	entire cerebrum	judgment, reason, motor coordination, vision, speech, hearing	double vision, drowsiness, loss of balance, clumsiness
10 to 12 drinks in one hour	.3% to .4%	limbic system	all above functions plus: respiration, heart rate	deep sleep, coma
more than 12 drinks in one hour	.5%	central core	all above functions plus: respiration, heart rate, body temperature	deep coma, death

E. Variables That Affect Degree of Intoxication

Objective: Students will identify and describe four physical factors that affect the rate at which an individual becomes intoxicated by alcohol.

Content:

Intoxication, for legal purposes, is measured in terms of Blood Alcohol Concentration (BAC). A BAC of .10 percent is the point at which an individual is legally considered intoxicated. There are several physical factors that influence the degree to which an individual may become intoxicated (or reach a BAC of .10 percent or more).

1. Rate of Consumption

Because alcohol is quickly absorbed into the bloodstream, the rate at which a person consumes the drug will affect the level of intoxication. Since the body can oxidize .015 percent of alcohol in one hour, a person who consumes one drink during an evening will be less likely to feel the effects of that alcohol than the person who consumes one or more similar drinks in *one hour*.

As discussed in Module B of this lesson, the rate at which a person consumes alcohol is influenced to some extent by the kind of alcoholic beverage he or she chooses to drink. A typical serving of beer may have more volume than a glass of wine or a mixed drink, and therefore take longer for an individual to consume. Beer and wine are less likely to be altered (or strengthened or "spiked") than mixed drinks, which are often strengthened by doubling the alcohol content. An 8-oz. mixed drink that contains 3 oz. of alcohol is equal in content to two standard servings of beer or wine. After consuming one and one-half such drinks in one hour, the drinker would have a BAC of .09 to .10 percent. After two such servings, the drinker's BAC would be about .20 percent.

A very rapid rate of alcoholic consumption is particularly dangerous. Young drinkers should be warned against being coerced into drinking very rapidly (chugging) on a dare or as part of an initiation rite. Gulping 80 to 100 proof alcohol can propel the drinker rapidly through the stages of intoxication. The bloodstream assimilates the alcohol almost immediately and rushes a large portion of it to the brain. In a matter of minutes, the alcohol can impair brain function that controls vital reflex actions and the drinker can die of respiratory paralysis.

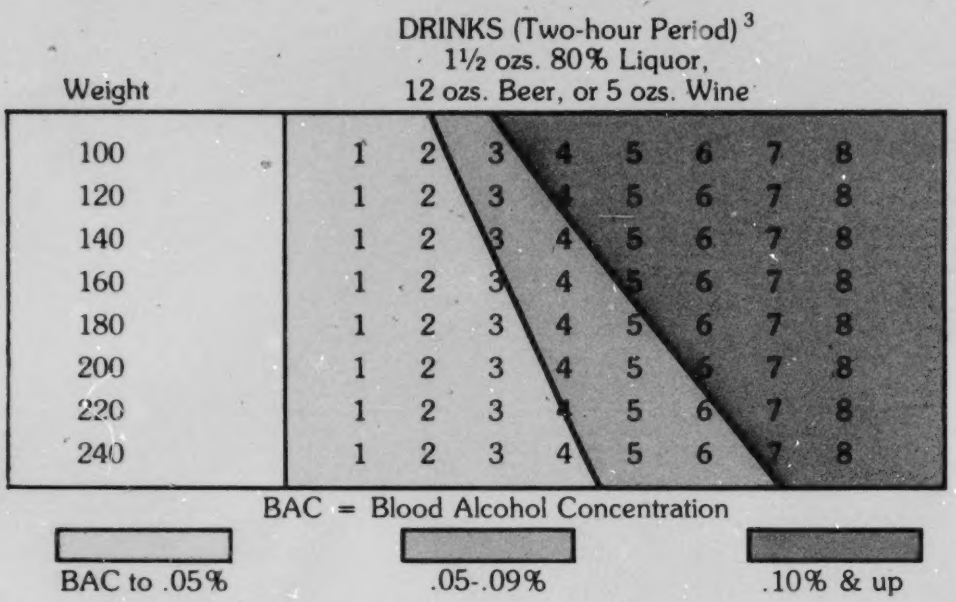
2. Rate of Absorption

Drinking on an empty stomach results in rapid absorption of alcohol into the bloodstream because there is no food in the stomach to slow down this process. Therefore, the drinker who does not eat will reach the point of intoxication more quickly than will the person who consumes food along with or prior to drinking alcohol.

3. Body Weight

The drinker's body weight also affects the rate at which alcohol reaches the brain. Generally, the heavier the individual, the more slowly alcohol achieves a given concentration in the bloodstream and travels through the body to the brain. For example, after

consuming *two* typical drinks in a two-hour period, a person who weighs 100 pounds will have a BAC of approximately .05 percent. But it will take an equivalent of *four* drinks in the same time period for a person who weighs 220 pounds to reach a BAC of approximately .05 percent. The following chart illustrates the relationship of body weight to BAC.



4. Body Chemistry

Physiological conditions acting within each person's body account for the different ways in which individuals react to alcohol. A person who is very tired or undernourished may feel the effects of alcohol much more quickly than does a person who is rested and in good health. Also, some people can drink a great deal of alcohol and become intoxicated without showing any visible effects of the drug, while other people react with nausea and vomiting after consuming one or two drinks—before becoming intoxicated.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 2: 5, 6, and 11 (pp. 34-38).

Evaluation:

Use evaluation item 8 (p. 49).

[3]Kim Garretson. "Teenage Drinking and Driving: What Can a Parent Do?" *Better Homes and Gardens* (July 1979), p. 13.

F. Variables That Affect Drinking Behaviors

Objective: Students will identify and describe psychological factors that can influence an individual's drinking behavior.

Content:

Several psychological factors can influence a person's drinking behavior.

1. Situation

Many individuals subconsciously regulate their behavior when they are drinking, depending on *where* they are and *with whom* they are drinking. For example, a young businessperson having dinner with a friend may act carefree and uninhibited after one drink. But, when this person has dinner with his or her boss the next night, one drink may seem to have no effect. The degree of intoxication in each case is probably the same, but the behaviors exhibited are different.

2. Mood

Emotions can also affect drinking behavior. Individuals who are feeling comfortable and at ease are likely to stop drinking after they feel the relaxing effects of one drink. But when feeling tense or angry, these same individuals may feel the effects of alcohol sooner or may feel pressured to continue drinking until their minds no longer focus on their problems and their moods are dispelled.

3. Drinking Experience

People who are used to alcohol recognize when it is beginning to interfere with their judgment and coordination. Certain reactions warn them when to stop drinking. They have also learned ways to control their behavior. Inexperienced drinkers do not have a clear picture of how they will react to alcohol, nor have they learned to control their reactions or curtail their intake. In fact, since they are expecting alcohol to affect them, they may purposely behave with less control.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 2: 1, 11, and 12 (pp. 34-38).

Evaluation:

Use evaluation item 9 (p. 49).

G. Truths and Common Myths about Drinking

Objective: Students will recount and clarify truths and common myths about drinking.

Content:

Myth 1: Alcohol Is a Stimulant

Contrary to this popular belief, the effect of alcohol is that of a *depressant*, not a stimulant. When consumed, alcohol is absorbed into the bloodstream from the stomach and small intestine and is carried to the brain where it exerts its depressive action.

The first area of the brain affected by alcohol is the area that regulates inhibitions, judgment, self-control, and restraint. When inhibitions are eliminated, individuals may react as though they are stimulated. They may laugh loudly at jokes that are not particularly funny and say things that embarrass others. These reactions result from the depression of the higher centers of the brain.

Larger doses of alcohol usually make the depressive effect of alcohol more obvious. Drinkers may stagger or fall and they may become sleepy. Observing this stage, it is easier to understand that alcohol is a depressant rather than a stimulant.

Myth 2: A Few Drinks Will Improve Skill

Alcohol does not increase skill or efficiency in the classroom, on the job, behind the wheel of a car, or anywhere else. It may increase a person's confidence, but the skill is always decreased. Recent studies corroborate this statement.

The results of one study indicate that alcohol reduces one's ability to perform motor skills. After drinking small amounts of whiskey, typists in this study felt extremely confident about their abilities and increased their typing speeds; however, they made considerably more errors in their work. Fatigued participants felt their tiredness vanish but their actual muscular output was decreased.

The results of a study comparing the ability of drinking and nondrinking participants to memorize 25 pages of written material indicate that alcohol slows the thought processes. The time needed by the drinking group to memorize the material was nearly double that needed by the nondrinking group.

Driving skills are also affected by alcohol. The suicidal notion that a little drinking doesn't affect one's driving abilities comes from the effect of alcohol on the judgment area of the brain, the first part of the nervous system affected by alcohol. The unjustified feeling of confidence encourages the impaired driver to take chances, squeeze through tighter places, turn corners with less clearance, and drive faster. The large number of alcohol-related traffic accidents testifies to the fact that alcohol does not improve skill.

Myth 3: Alcohol Warms the Body

According to wartime research conducted by the Air Force, a drink of brandy, whiskey, or other alcoholic beverage is poor medicine in cold weather. The use of alcoholic bev-

erages may impart a sensation of warmth to the body by creating surface heat; but, as the blood is brought to the skin's surface, the body loses heat and the body temperature is actually lowered.

Myth 4: There Is a Magic Formula for Sobering Up

The common belief that exercise, fresh air, a slap in the face, a serious talk, a cold shower, deep breathing, or black coffee can help speed recovery from the effects of alcohol is untrue.

Alcohol leaves the body by oxidation at the rate of about 3/8 ounce per hour for a person weighing about 140 pounds. A small amount is also eliminated through the liver, sweat glands, and lungs. This figure varies according to body weight, food in the stomach, and other factors. However, the general rule is that *only time* will rid the body of alcohol and its effects. The only virtue of the other "remedies" listed above is the time they take.

Myth 5: Alcohol Affects Adults and Teen-agers in the Same Manner

Young people have a tendency to imitate what they believe is adult behavior, hoping that peers will believe them to be more mature. Some teen-agers drink alcoholic beverages to illustrate to others that they are as mature and independent as their older friends, relatives, and acquaintances.

Unfortunately, adults and teen-agers do not always react in the same way to similar amounts of alcohol. Because teen-agers tend to weigh less than adults, they tend to feel the effects of alcohol more quickly. Secondly, teen-agers are generally less experienced drinkers. They do not recognize the effects of alcohol on the body systems until they are well past the point of intoxication.

Myth 6: Beer Doesn't Count

Beer has more alcohol by volume than wine and mixed drinks. However, as was shown earlier, beer is typically served in greater volume than wine or liquor. Therefore, if a comparable amount of beer is consumed, the beer can be fully as intoxicating as liquor.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 2: 11, 13, and 14 (pp. 34-38).

Evaluation:

Use evaluation item 10 (p. 49).

Suggested Learning Activities for Lesson 2

Students	Teacher
1. Film, Discussion, and Posters or Fact Sheets Using the content of the film, discuss various aspects of alcohol and its physical and behavioral effects on the body. At the conclusion of the discussion prepare posters or fact sheets about effects of alcohol on the human body and post them on bulletin boards.	1. Show any of these films: • *Thinking about Drinking* • *Alcohol* • *For Those Who Drink* • *Just One* • *Drugs, Drinking, and Driving* • *Drink, Drive, Rationalize*
Obtain books on alcohol from the library. Trace the use of alcohol from prehistoric times to present. If desired, work in teams, dividing the work according to time periods. Prepare charts highlighting the main points of each group's findings.	2. Act as a resource person, suggesting resources. If possible, meet with the school or local librarian to plan for ready availability of books on alcohol.
Complete the worksheet. Discuss the correct answers when finished.	3. Distribute copies of Worksheet 2A (p. 39). Discuss the content of the worksheet when students finish. Key: A-2, B-3, C-1; 1F, 2F, 3F, 4T, 5F, 6T.

Students	Teacher
4. Worksheet 2B and Discussion Complete the worksheet. Discuss the correct answers when finished.	4. Distribute copies of Worksheet 2B (pp. 40-42). Discuss the content of the worksheet when students finish. Key: 1. whiskey 2a. about ½ oz. 2b. about ½ oz. 2c. ½ oz. 2d. 1 oz. 2e. almost 1 oz. 2f. almost 1 oz. 3a. about ½ oz. 3b. about 1½ oz. 3c. 4 4/5 oz.
5. Worksheet 2C and Discussion Assemble the wheel on pages 1 and 2 of Worksheet 2C or use one provided. Complete the activities on page 3 of the worksheet. Prepare a drinking chart showing the types and amount of alcohol each student can drink within a specified period of time and remain legally sober. Keep the chart for later use.	5. Distribute copies of Worksheet 2C (pp. 43-45). Explain assembly of the wheel if necessary (or, if preferred, provide one assembled wheel and pass it around the class). Provide assistance with information and calculation procedures. Emphasize the relationship between BAC level and driving competence. Key: Answers depend on students' weights.
6. Worksheet 2D and Discussion Complete the worksheet. When finished, discuss the correct answers.	6. Distribute copies of Worksheet 2D (p. 46). Act as a resource person. When students finish and results have been checked, discuss the correct answers with students. Key: 1. .02, .05, .08, .11, .14; 2. .00, .03, .06, .09, .12.

Students	Teacher
7. Class Speaker Listen to the speaker and ask questions to clarify understanding of BAC in drunk driver detection.	7. Invite a state patrol officer to speak to the class about BAC in the detection of drunk drivers. Ask the speaker to bring a breatholyzer and explain how it works.
8. Human Brain Diagram Given a copy of the diagram of the human body, trace the passage of alcohol through the body, indicating important points along the way where it affects the body.	8. Supply materials and discuss the results of the students' work.
9. Worksheet 2E and Discussion Complete the worksheet. Discuss the answers when finished.	9. Distribute copies of Worksheet 2E (pp. 47-48) and explain the activity. Discuss the correct answers when students finish. Key: (See illustration in the lesson content.)
10. Research Select one organ of the human body (liver, heart, brain, or other) and learn about the long-term effect of alcohol on the organ.	10. Act as a resource person.
11. Discussion Discuss how and why drinking may affect a teenager somewhat differently than an adult.	11. Present the information in Modules E and G and lead students to discuss implications for the teenage drinker.

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Students	Teacher
12. Pictures and Discussion Collect pictures from magazines, advertisements, or other sources depicting people in various drinking situations and bring them to class. Discuss the behaviors implied by each picture. How do such pictures affect your attitudes toward drinking?	12. Explain the activity. When students bring pictures to class, lead a discussion of the behaviors implied by each.
13. Discussion and Displays In small groups, discuss the facts and myths about alcohol. Conduct a schoolwide educational activity about myths and facts, such as: a. Prepare posters or information sheets to be displayed or distributed among the students in the school. b. Conduct a true-false survey about alcohol myths. Then create a school display showing the results of the survey and the facts about alcohol. c. Create an alcohol quiz for the school newspaper and follow-up articles about alcohol facts.	13. Divide the class into small discussion groups, perhaps one for each myth discussed in class. Help the groups begin the discussion. Act as a resource person in planning schoolwide activities.
14. Discussion Discuss misconceptions about ways to sober up, results of those misconceptions, and the facts.	14. Present a list of common beliefs about ways of sobering up. Ask questions to stimulate students' interest and participation in the discussion. (continued)

Students	Teacher
	14. Sample discussion topics: a. Do you think this way would work? Why or why not? b. Have you ever tried this way or seen it tried? What was the result? c. If it appeared to work, what other factors might have been at work?

WORKSHEET 2A

Match the form of alcohol with its example by inserting the letters next to the numbers.

A.	Methanol	_____1.	drinking alcohol
B.	Propanol	_____2.	antifreeze
C.	Ethanol	_____3.	rubbing alcohol

Circle true or false for each statement.

1.	Alcohol is a stimulant.	T	F
2.	Alcohol does not affect the brain.	T	F
3.	Alcohol is classified as a drug because it cured many diseases in the past.	T	F
4.	Alcohol can have a tranquilizing effect on the user.	T	F
5.	Alcohol is hard to get.	T	F
6.	Alcohol is the number one form of drug abuse.	T	F

WORKSHEET 2B

1. The proof of an alcoholic beverage is determined by doubling the percent of alcohol it contains. Compare the following beverages. Which beverage has the highest *proof*? The first proof is determined for you. Circle the beverage with the highest proof.

beer	4 percent alcohol
whiskey	50 percent alcohol
dinner wine	24 proof
dessert wine	40 proof

---

beer: 4 percent X 2 = 8 proof.

WORKSHEET 2B

2. Using the following percentages, determine the amount of alcohol contained in each of the drinks listed below. The first one is done for you.

beer	4 percent per cunce
dinner wine	12 percent per ounce
whiskey and gin	50 percent per ounce

---

a. one 12-oz. bottle of beer

12 oz. beer
X.04 alcohol per ounce
.48 or $\frac{48}{100}$ = approximately ½ oz.

b. one 4-oz. glass of dinner wine

c. one 1-oz. shot of whiskey

d. a gin and tonic with two 1-oz. shots of gin

e. two 4-oz. servings of dinner wine

f. two 12-oz. cans of beer

WORKSHEET 2B

3. Alcoholic beverages are served in varying amounts. A typical serving of beer is 12 ounces; wine 5 ounces; and whiskey, 1½ ounces.

   How much alcohol (in ounces) would be contained in each drink if equal amounts of the alcoholic beverages were served?

12 oz. of beer	4 percent alcohol
12 oz. of wine	12 percent alcohol
12 oz. of whiskey	40 percent alcohol

   a. beer =

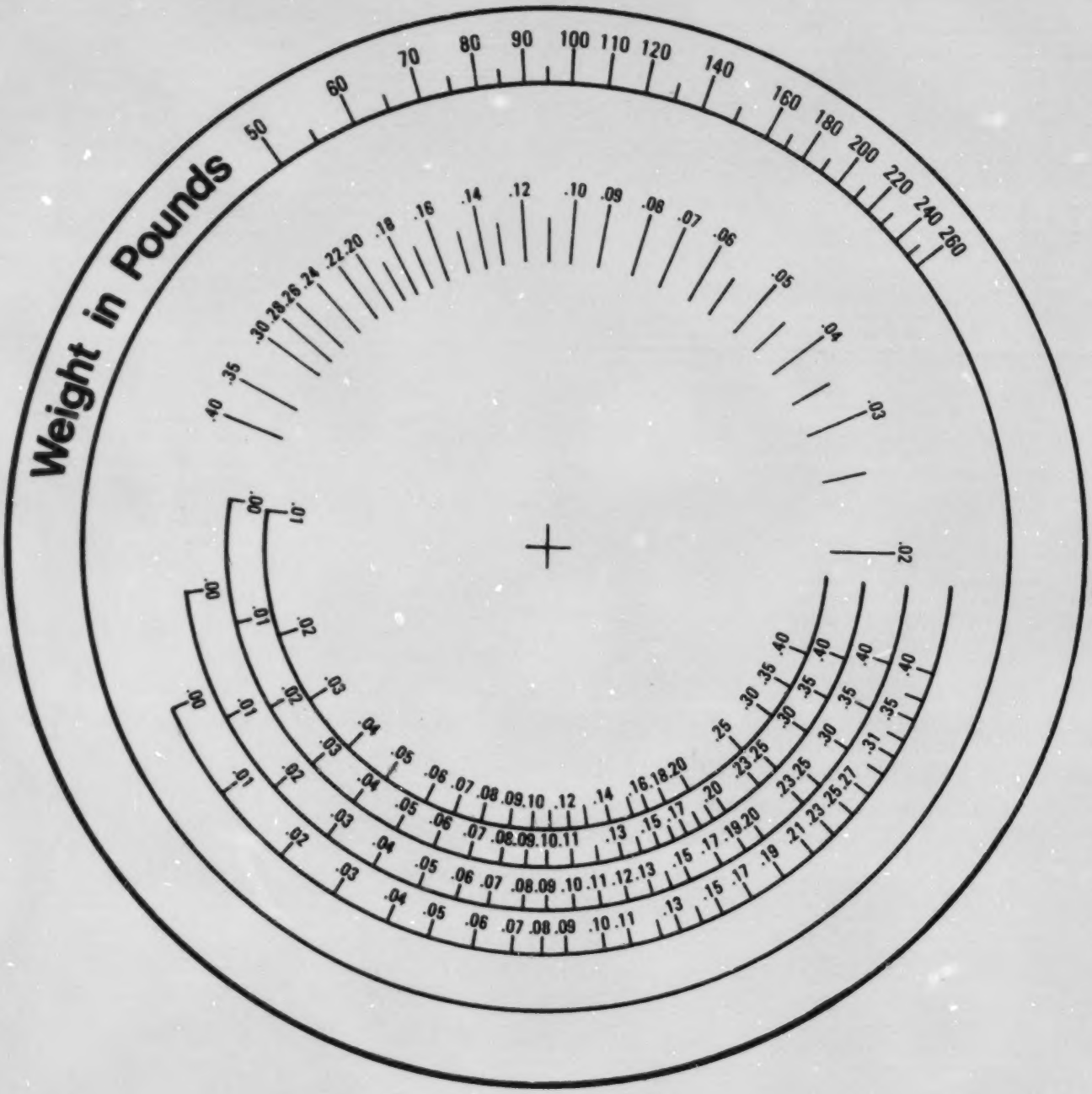
   b. wine =

   c. whiskey =

WORKSHEET 2C

1. Cut out circles on the two pages.
2. Paste each circle on cardboard and then cut out.
3. Cut out the two sections indicated on the smaller circle (razor may be easier than scissors).
4. Put smaller circle on top of larger one, fasten together through center with paper fastener being as accurate as possible.

WORKSHEET 2C



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WORKSHEET 2C

A. Using the BAC wheel and your own weight, follow the steps listed below to find the number of drinks needed to produce a blood alcohol level of .03. (Assume the alcohol was consumed in ½ hour.)

1. Find ½ hour on the "time spent" part of the wheel.
2. In the bottom window, locate .03 on the ½ hour line.
3. Put the arrow over .03 on the ½ hour line.
4. Now, find your weight at the top of the wheel. (Do not turn the wheel.)
5. The number under your weight is the number of drinks consumed in ½ hour that would produce a BAC of .03. Record this number on the chart below.

BAC	Approximate Number of Drinks to Produce This BAC
.03	----------
.05	----------
.08	----------
.10	(Legally Intoxicated)----------
.14	----------
.25	----------

B. Complete the rest of the chart in exercise A, following the same steps.

WORKSHEET 2D

1. Use the BAC wheel from Worksheet 2C. Find the blood alcohol concentration levels in a 120-lb. person who consumes the following numbers of typical drinks in ½ hour.

No. of Drinks	BAC
1	
2	
3	
4	
5	

2. Find the blood alcohol concentration levels for a 120-lb. person who consumes the following number of drinks in a 2-hour period of time.

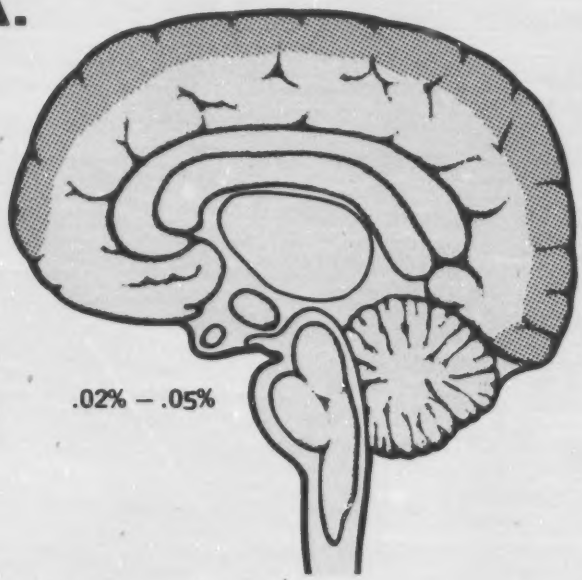
No. of Drinks	BAC
1	
2	
3	
4	
5	

WORKSHEET 2E

BRAIN SHADING = ESTIMATED BRAIN INVOLVEMENT
AT VARIOUS BLOOD ALCOHOL LEVELS

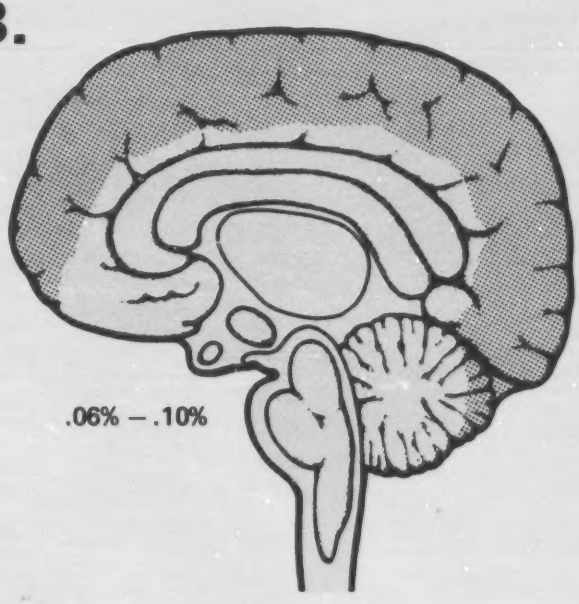
List the brain functions affected at the BAC levels shown in A, B, C, D, and E.

A.



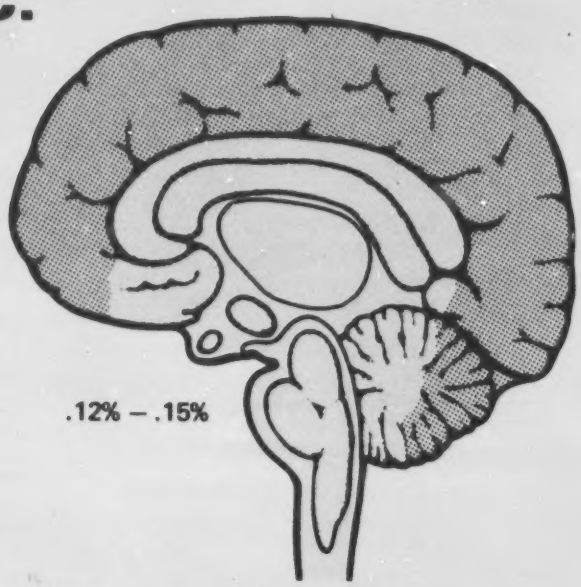
.02% – .05%

B.

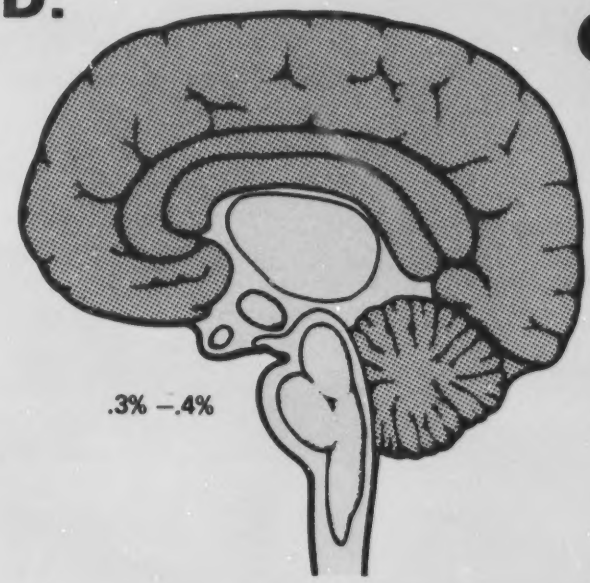


.06% – .10%

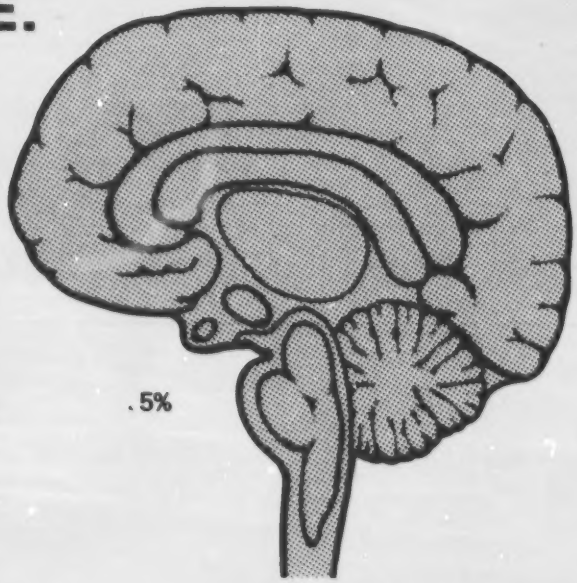
C.



D.



E.



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Evaluation for Lesson 2

1. Check the results on Worksheet 2A to determine whether students understand these facts about alcohol.

2. Check the results on Worksheet 2B to determine whether students can compute the amount of alcohol contained in various drinks.

3. Ask students to explain how alcohol is absorbed into the body.

4. Check the completed copies of Worksheet 2C to determine whether students understand the correlation between number of drinks consumed and BAC.

5. Ask students to list facts about alcohol and its effects on the three layers of the brain.

6. Ask students to write a short paper or statement expressing their attitudes toward use of the BAC test as related to traffic safety and the law.

7. Ask students to write a short paper or statement expressing attitudes toward alcohol use after they have learned the facts about alcohol in this lesson.

8. Ask students to list four physical factors that affect the rate at which an individual becomes intoxicated and to write several sentences describing each factor.

9. Ask students to list three psychological factors that can influence an individual's drinking behavior and give examples illustrating each factor.

10. Listen to students' discussions about facts and myths about alcohol and review their posters, information sheets, or other display activities to determine whether they understand the facts presented.

Supplementary Readings for Lesson 2

1. Keller, Mark. *How Alcohol Affects the Body*. New Brunswick, N.J.: Center of Alcoholic Studies, Rutgers University, 1976.

   Using nontechnical language the author explains in a very precise manner how alcohol affects the body. Topics covered include: (a) why alcohol makes people drunk, (b) alcohol and the brain, (c) effects of alcohol on the stomach, kidneys, glands, liver, heart and circulation, eyes and ears, and other areas. This is a valuable source for the general public about alcohol and its effects on human subjects.

2. Greenburg, Leon A. *What the Body Does with Alcohol*. New Brunswick, N.J.: Center of Alcoholic Studies, Rutgers University, 1976.

   This nontechnical treatment of alcohol covers a wide range of topics such as what alcohol is, how alcohol is made, alcoholic beverages, what happens to alcohol after drinking, and how alcohol is distributed in the body. The pamphlet should be of interest to teachers and students alike.

3. McCarthy, Raymond G. *Discussion Guides for Questions about Alcohol: No. 1, The Physiological Effects of Alcohol*. New Brunswick, N.J.: Rutgers Center of Alcohol Studies, Rutgers University, 1956.

   Contains background information about the nature and properties of alcohol and its physiological effects on drinkers. It also discusses misconceptions about alcohol and provides accurate information about alcohol that teachers and students should know.

4. _____. *Facts about Alcohol*. Chicago, Illinois: Science Research Associates Inc., 1967.

   A brief, clear, and complete discussion of various aspects of alcohol and its effects on individuals. Some important topics included are: (a) facts about alcohol, (b) some negative effects, (c) alcohol and personality, (d) alcoholism and the alcoholic, and (e) getting personal: drinking and you.

   A useful guide for teachers who need brief background information on the topic.

Lesson 3

Alcohol: Use, Abuse, and Moderation

Lesson Goal: Students will develop an understanding of the role alcohol use plays in society, recognize some of the costs of alcohol abuse, and develop guidelines for responsible alcohol use.

CONTENT

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A. Who Drinks?	52
B. To Drink or Not to Drink	53
C. Costs of Alcohol Abuse	55
D. Guidelines for Moderate Drinking	59
Suggested Learining Activities	60
Evaluation	69
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A. Who Drinks?

Objective: Students will list several occasions during which young people drink.

Students will state their attitudes about responsible use of alcohol.

Content:

Alcohol is used in a variety of situations and by a variety of people.

Approximately 70 percent of the adults in the United States drink alcoholic beverages. The fact that ours is a drinking culture is evidenced by the frequency with which alcoholic beverages are served. For example, it is common practice in many homes to drink cocktails after the day's work or to serve wine with the evening meals. When people meet socially in small groups or at parties, they often drink alcoholic beverages. Drinks at lunch and during the "cocktail hour" are frequently seen as necessary adjuncts to business.

The use of alcohol is increasing among teen-agers and younger children. A 1975 study conducted by the National Highway Traffic Safety Administration indicated that 45 percent of the high school students surveyed drank alcoholic beverages at least once a week. Other studies have shown that most young people have experimented with alcohol by the time they reach the age of 18. Some of these youngesters do not continue drinking after their first experience, but many do. With increasing age, the incidence of drinking also increases.

Young people who drink do not fall into any set category. They have a wide range of scholastic abilities and interests. They often share the desire to do their drinking with other people, thereby adopting the pattern of social drinking established by adults. Teen-agers, however, depart from adult drinking patterns in one very serious aspect: much of their drinking is done in cars.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 3: 1, 2, 3, 7, and 8 (pp. 60-65).

Evaluation:

Use evaluation items 1 and 5 (p. 69).

B. To Drink or Not to Drink

Objective: Students will list the factors that motivate them to drink alcoholic beverages or to abstain.

Content:

Why one person drinks and another does not is not easily determined. The reasons for drinking or abstaining are not always apparent to the persons themselves, much less to others. Listed below are reasons given by different people for their decisions to drink or not to drink.

Reasons Given for Drinking

People drink . . .

1. because it is part of their family pattern to drink alcoholic beverages, such as wine with the evening meal or cocktails before dinner.
2. because alcohol seems to make special occasions more festive for them.
3. because they like the way alcohol makes them feel: relaxed, high, or happy.
4. because alcohol reduces their inhibitions and enables them to act in ways they usually find to be uncomfortable: loving, funny, or outgoing.
5. because they associate drinking with masculinity, femininity, sexual prowess, or maturity.
6. because it helps them to forget worries and anxieties.
7. because of peer pressure. They fear that they will not be accepted by their friends unless they drink; they want to "belong."
8. because of social pressures. They do not want to offend a host or hostess who offers alcoholic beverages.
9. because they like the taste of alcoholic beverages.
10. because of curiosity.
11. because of boredom.
12. as an expression or rebellion—against parents, spouse, religion, government, or society.

Reasons Given for Not Drinking

People abstain from drinking . . .

1. because of personal convictions against the use of alcohol patterned after attitudes of abstaining parents.

2. because the religious group to which they belong prohibits the use of alcohol.

3. because they do not like the taste of alcoholic beverages.

4. because drinking violates athletic training regulations.

5. because they can't afford to buy alcohol.

6. because of ill health, allergies to alcohol, or long-term medications that are incompatible with alcohol.

7. because they object to consuming anything that will impair mental and physical processes.

8. because they lack confidence in their ability to control the amount of alcohol they drink.

9. because they are afraid they will become like someone they know (an alcoholic friend or parent).

10. because they don't like the way alcohol makes them feel or behave.

11. because they associate drinking with slovenliness, lack of will power, violence, or other negative images.

12. because they fear alcohol will affect their ability to carry out their responsibilities.

Occasional Abstention

Some people who sometimes drink choose to abstain *at certain times*. Examples of occasions when people abstain are given below.

1. Some people abstain when they are taking a short-term medication that is incompatible with alcohol.

2. Some people enjoy alcohol only in certain situations and abstain at other times.

3. Some people abstain before engaging in activities for which their performance would be impaired by alcohol—for example, athletics, dramatic or musical performances, speeches, operation of machinery, and driving.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 3: 1, 2, 3, 4, 5, 6, 7 a and b (pp. 60-65).

Evaluation:

Use evaluation items 2 and 5 (p. 69).

C. Costs of Alcohol Abuse

Objective: Students will give examples of the costs of alcohol abuse.

Content:

Many people drink occasionally or moderately without causing significant problems in their lives or the lives of others. However, abusive (excessive, frequent, or dependent) use of alcohol can create serious social and emotional problems for the people who drink as well as for their families and other members of society.

According to statistics presented by the National Institute on Alcohol and Drug Abuse, approximately one out of every seven adults is an alcoholic or problem drinker. Many teen-agers, as noted in Module A, are imitating the drinking patterns of adults by drinking frequently and excessively. Often, the factors that motivate teen-agers to drink lead them to drink excessively or in unsafe circumstances.

The costs of alcohol abuse are great. These costs are not incurred only by the alcoholic drinker; the drinking driver, whether an alcoholic drinker or an occasional drinker, incurs—and creates—the greatest costs. Some of the costs relating to alcohol abuse are described below.

Driver-Related Costs

Human Lives

Alcohol is rated as the number one highway problem in the nation. One in every 50 automobiles on the road is operated by an intoxicated driver. There may be many other drivers who are impaired by alcohol below the level of intoxication.

Because drinking adversely affects perception and judgment, driving a vehicle is one of the most dangerous things a person can do while under the influence of alcohol. Statistics show that over one-half of the traffic fatalities in this country each year are alcohol related. Over 28,000 people—many of them children, pedestrians, nondrinking drivers, and passengers—are killed by drunk drivers each year. According to one source in 1979, "More than 4,000 teen-agers will be killed and 40,000 will be injured in the next 12 months because of drinking and driving."[4] The drinking driver is the greatest menace on our roads today.

Costs of Accidents

In addition to human lives lost in traffic accidents, considerable money is lost as a result of these accidents. Automobile repair or replacement, medical care for injuries sustained, and repair of property damage are but a few of the costly results of traffic accidents.

Table 1 on page 56 presents a comparison of injuries, deaths, costs, and other aspects of accidents from 1955 to 1974. It should be noted that these figures include all accidents, not just those related to alcohol.

[4]Garretson, op. cit., p. 13.

Insurance Rates

The increase in traffic accidents caused by drinking drivers has contributed to increased insurance rates for everyone. However, the greatest expense is incurred by those people or groups who have the most accidents.

The National Highway Traffic Safety Administration has stated that driving (and riding with other young drivers) is the greatest hazard that young people must survive to reach adulthood. The fact that young drivers have a very high accident rate—whether drinking or sober—is reflected in the higher insurance rates that they are asked to pay. Adding the risks of alcohol impairment to the risks associated with the teen-ager's lack of driving experience has the potential of greatly increasing insurance costs for the teen-ager.

TABLE 1

A TWENTY-YEAR COMPARISON OF MOTOR VEHICLE ACCIDENTS [5]

Items	1955	1960	1965	1967	1971	1974
Deaths	38,426	38,137	49,163	52,924	54,700	46,200
Injuries (in millions) *	1.3	1.4	1.8	1.9	2.	1.8
Cost (in billions)	$4,500	$6,500	$8,900	$10,700	$15,800	$43.3
No. of Vehicles (in millions)	62.8	74.5	91.8	98.9	1[illegible]5	122.4
No. of Drivers (in millions)	74.7	87.4	99	103.2	114	128.7
No. of Miles (in billions)	603	719	888	965	1,170	1,306
Death Rates Per 10,000 vehicles	6.12	5.12	5.36	5.35	4.75	3.59
Death Rates Per 100,000,000 vehicle miles	6.37	5.31	5.54	5.48	4.68	3.6

* The Health Interview Survey (U.S. Public Health Service, covering the United States for 1974) reported 3.927 million persons injured in motor vehicle accidents that year. According to the NSC, the numerical differences between these two surveys "appear to be due mainly to the differences in the injury definition used."

[5] Kenneth A. Rouse. "The Way to Go." (Long Grove, Illinois: Kemper Insurance Companies, 1974).

According to the Insurance Services Organization, any person—youth or adult—who is convicted of driving while intoxicated is considered to be a high risk driver and may have insurance premiums increased by as much as 150 percent. Other effects of such a conviction on insurance policies are described in Lesson 6.

Court Costs

Drinking drivers use the time of police and courts. The costs are passed on to the taxpayer. Court fees and attorney fees are the expense of the driver.

Professional Costs

A conviction for driving while intoxicated can result in loss of a driver's license. This can make it difficult or impossible for the offender to hold certain jobs.

Other Costs

Financial Loss

It is estimated that drinking on the job and Monday morning absences due to hangovers account for a loss of $10 billion per year in business, industry, government, and the military. Continued abuse of alcohol can result in loss of personal income due to pay loss during time away from the job or loss of a job.

Increased Violence

Barroom brawls, fights with friends and family, and other acts of violence often occur as a result of drinking. Recent studies indicate that one-half of all homicide offenders and one-half of all homicide victims were drinking at the time of the crime.

Increased Number of Accidents

Drinkers are accident prone not only on the highway but at home, on the job, and in their leisure activities. Limited testing has shown that drinkers have twice as many off-the-job accidents as nondrinkers.

Emotional Strain

Alcohol abuse and dependency have a variety of emotionally debilitating effects on the drinker as well as on family members and friends. These effects can include:

1. loss of self-esteem
2. loss of friends
3. loss of interest in constructive pursuits
4. loss of reputation
5. loss of job
6. deterioration of family life.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 3: 1 (discussion topics b, c, and d), 3, 7 b and c, 8, and 9 (pp.60-65).

Evaluation:

Use evaluation items 3 and 5 (p. 69).

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D. Guidelines for Moderate Drinking

Objective: Students will develop at least three personal guidelines for drinking behavior that will minimize the risks of intoxication.

Content:

For the individual who has made personal decisions to drink, there are a number of ways to partake of social drinking while avoiding drunkenness:

1. Know your limit. Don't accept more drinks than your limit.
2. Eat while you drink.
3. Don't drink fast. Sip for enjoyment; don't gulp for effects.
4. Accept a drink only when you really want it.
5. Cultivate taste. Choose quality rather than quantity.
6. When dining out, have your drinks with dinner, not before (on an empty stomach) or afterward (when there is little time to oxidize the alcohol).
7. Beware of unfamiliar drinks.
8. Don't drink to relax when what you really need is a change of pace or some sleep.
9. Remember that the purpose of a party is togetherness, not tipsiness.
10. Don't drink every time. Set up a "buddy system" with friends, by which one person each time abstains and drives.
11. If you overindulge, have someone else drive.
12. Talk with your parents. Some parents will agree to pick up their teen-ager (or a driving friend) if he or she has had too much to drink.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 3: 1 (topic d), 3, 6, and 7 (pp. 60-65).

Evaluation:

Use evaluation items 1, 4, and 5 (p. 69).

Suggested Learning Activites for Lesson 3

Students	Teacher
1. Film and Discussion Using the content of the film as a starting point, discuss different aspects of alcohol and its effects on people. Concentrate on such topics as: a. reasons for which people drink or abstain from drinking, b. financial and psychological effects of alcohol on people, c. effects of alcohol on a person's driving ability, d. responsible vs. irresponsible drinking behavior, e. teen-age motivations for drinking, and f. is responsible drinking behavior different for teen-agers than for adults?	1. Show any of these films: • *What Time Is It Now?* • *Alco Beat* • *To Your Health* • *It's Best to Know* • *There's a Message in Every Bottle* • *A New Look at the Old Sauce* • *Tobacco and Alcohol: The $50,000 Habit* • *The D.W.I. Decision* • *None for the Road* • *The Bottle and the Throttle* • *Drink, Drive, Rationalize* Help start discussion based on the content of the film.
2. Media Tally Make a collage of pictures showing people drinking in a variety of settings and on a variety of occasions: weddings, football games, in front of TV, on picnics, on moving day, and so on. Record next to each picture the number of times a similar situation was depicted on TV or seen in magazines in a given week. Compile individuals' results into a final class report to show the extent to which media encourage drinking.	2. Act as a resource person. If possible, supply magazines for students who don't have ready access to them.

Students	Teacher
3. Discussion: Drinking Patterns Discuss the issue of drinking patterns: a. How are drinking patterns similar to eating, sleeping, and smoking patterns? b. How does habit affect one's continued pattern of activity? c. What is the harm (or good) in following a regular pattern for drinking? d. What are some ways you can change a drinking pattern?	3. Prepare the students for group discussion. Act as a facilitator during discussion. Help summarize group comments.
4. Discussion: Reasons for Drinking or Abstaining Compare reasons #1 and #6 under Module B, "Reasons Given for Drinking" (p. 53 of this guide). What behavior do you associate with each reason? Which reason has greater implications for alcohol dependency? Why? Which reasons for drinking and for abstaining seem plausible to you? Can you think of other reasons? Is occasionally abstaining really abstaining?	4. Prepare the class for discussion. Present the reasons for drinking and abstaining. Pose questions to the class.

Students	Teacher
5. Survey Conduct a verbal or written survey to determine the primary reasons why teen-agers in your school drink or abstain. Ask each person: • whether they drink • if so, what their most important reasons are for drinking • if not, what their most important reasons are for abstaining It might be most effective to provide a checklist of possible reasons on which the surveyed students check (or rank order) the reasons that apply to them. When responses have been compiled and tallied, discuss which reasons indicate that drinking is a "crutch" enabling the individual to achieve a better rapport with others, feel more comfortable around others, and so on. Discuss whether using alcohol as a crutch in the teens can set the stage for serious drinking problems or alcoholism later in life.	5. Set up guidelines for the survey. Set a time limit. Have survey forms duplicated if necessary. Organize tallying of responses and set the stage for discussion. Pose discussion questions to students.

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Students	Teacher
6. Large or Small Group Discussion Discuss the situations on Resource Sheets A, B, and C and the discussion questions following each. Attempt to reach consensus on each question (this is not always possible, but can lead to spirited discussion). Have a spokesperson summarize the discussion to the rest of the class.	6. Divide the class into three smaller discussion groups or leave as a large group. Present the situations and questions on Resource Sheets A, B, C (pp. 66-68). Each small group may discuss one situation or the whole class may discuss one or more as time permits. Assist the discussion groups in arriving at conclusions. Provide background information as needed. Help summarize the results of the discussions. Invite speakers from Al-Anon to serve as resource people.
7. Small Group Discussion In small groups, study and discuss at least one of the topics listed below. At the end of small group discussion, report findings, results, or recommendations to the entire class. a. Peer Pressure What is it? Is it good? Is it bad? What can one do to cope with peer pressure? Can one reject peer pressure and still enjoy friendship with the group.	7. Divide students into small discussion groups, assign each group a topic, and explain the activity. Act as a resource person, providing information if necessary. Help summarize results.

(continued)

Students	Teacher
b. Effects of Drinking on People Why do we drink? On what occasions should we drink? Why? What can it do to us (positive and negative)? What social, financial, health related, and emotional effects can alcohol abuse have on a person? How can one be a responsible drinker?	
c. Drinking and Driving How does alcohol affect driving? How can one avoid traffic accidents resulting from drunkenness? What are statistics of traffic accidents related to drinking?	
8. Debate Divide into two groups. In each group, select two or three representatives to serve as spokespersons or debaters. Study and discuss one of the following topics and agree on arguments for or against the concept, as assigned. While representatives debate the topics, the rest of the class serves as the audience. The audience sets up a scoring system and judges the debate. Possible Topics: Alcoholics are/aren't social ills. Society should/shouldn't be responsible for problems resulting for alcoholism. Legal drinking age should/shouldn't be lowered. We should/shouldn't keep drunk drivers off the road by making penalties more severe. Our culture encourages drinking, but it does/doesn't tolerate alcoholism.	8. Divide students into two groups, drinkers and non-drinkers (group assignment need not reflect the individual student's feelings about drinking). Help groups select two or three representatives to act as their debaters. Assign debate topics or have students select from alternative topics. Prepare students for study, discussion, and debate, acting as a resource person as necessary. Serve as moderator for the debate and help the audience (all those not actively debating) to fulfill their role.

Students	Teacher
9. Long-Term Projects a. Engage in a case study by tracing the history of alcoholism in the community: legal, medical, penal, and rehabilitative approaches to the problem and their impact. b. Interview parents, ministers, liquor store managers, drinkers, nondrinkers, family counselors, teachers, and others in the community regarding their attitudes toward social drinking, alcoholism, effects of irresponsible drinking, or other topics. Report the outcomes. c. Collect recent data on the costs of alcohol abuse. Resources include the mayor's court, Al-Anon, National Highway Traffic Safety Administration, American Medical Association, insurance companies, and others listed under "Supplementary Readings" in this lesson.	9. Serve as a resource person.

Resource Sheet A

Do Others Really Think What You Think They Think?

Situation:

Jeff (the driver) and his friends are parked in the country, where one of the friends has stashed a case of beer.

Jeff figures he probably shouldn't drink, since he is driving, but he is afraid his friends will cut him down if he doesn't drink with them. So he asks for a beer.

Meanwhile, at least one of Jeff's friends is concerned that Jeff is drinking, but he, too, is afraid to say anything about it.

Questions for Discussion:

1. How could this type of situation be prevented?

2. Do people always mean what they say?

3. What are your reactions to this situation?

4. What would you do if you were Jeff?

5. What would you do if you were the friend?

Resource Sheet B

How Can You Respond to Peer Pressure?

Situation:

Cindy is at a party where some of her friends are drinking alcoholic beverages. She doesn't care to drink, so she opens a soft drink. They coax her to have just one drink. She refuses, saying, "I just don't want to drink. I don't have anything against it—I just don't want to."

The others continue to nag Cindy about drinking. Finally, in desperation, she says, "Okay, just one."

Questions for Discussion:

1. What do you think of what Cindy did?

2. What is your opinion of Cindy's friends?

3. If you were Cindy, what would you have done?

4. Would your answer be different if Cindy were driving?

5. If you were one of Cindy's friends, would you have acted differently?

6. What steps could Cindy have taken to avoid the situation altogether? (Examples: pour the soft drink into a paper cup so no one would know what she was drinking; take the alcoholic drink without calling any attention to the matter, but just hold it and refrain from drinking it.)

Resource Sheet C

Can You Influence Others by Your Behavior?

Situation:

John, Mike, and some friends have stopped at a party following the football game. Everyone is laughing and having a good time, but it is obvious that John (the one who drove) is drinking too much.

When it is time to leave, Mike approaches John and offers to drive his car. John says he is fine and will do the driving himself. Mike, however, insists on driving and explains that he is not going to endanger his life, John's, or anyone else's by letting John drive. Mike states that he will help John out tonight, but that John will have to repay the favor and drive for him another time.

Questions for Discussion:

1. What would you do if you heard this conversation? How would you feel about the situation?

2. How do you think a group of teen-agers would react to this scene? Do you think their behavior would reflect their true feelings? Why or why not?

3. How would you react if you were John? Would your reaction be the same if Mike omitted the last sentence of his plea? Why?

4. What factors contribute to one's ability to influence others?

   Suggestions:

   1. good logic
   2. facts
   3. confidence in oneself and one's actions
   4. sensitivity to the feelings and needs of others.

Evaluation for Lesson 3

1. Have students write a short paper or statement describing occasions during which young people drink, their own attitudes toward the use of alcohol on these occasions, and what approach they believe is good for them regarding drinking, driving, and safety.

2. Have students list their personal reasons for choosing to drink or not to drink.

3. Ask students to identify problems that may arise as a result of alcohol abuse and to list some economic implications of these problems.

4. Have students list and explain steps they would take to avoid drunkenness when driving.

5. Have students write a brief statement indicating whether their attitudes toward drinking, driving, and traffic safety have changed after learning about alcohol and its effect on people. Have them defend their position.

Supplementary Readings for Lesson 3

1. Bacon, Margaret and Jones, Mary Brush. *Teenage Drinking*. New York: Thomas Y. Crowell Company, Inc., 1968.

   Provides a lucid account of attitudes toward the use of alcohol and drinking habits of different ethnic groups in the United States. Specifically, four ethnic groups—the Irish, the Jews, the Italians, and the Chinese—are included because each has followed quite clearly defined patterns of drinking which are strikingly different from those of the others...different enough to illustrate how widely drinking customs do vary within twentieth-century America (pp. 85-99).

   Several reasons often given by teen-agers when asked why they drink are discussed. Among them are social reasons, holiday celebrations or special occasions, curiosity about drinking, personal enjoyment, symbol of adulthood, and parents' drinking behavior (pp. 47-59).

2. *ABC's of Drinking and Driving: Facts about America's No. 1 Safety Problem*. Greenfield, Massachusetts: Channing L. Bete Co., Inc., 1974.

   This booklet gives facts and information about psychological and physical effects of alcohol on humans. It also suggests ways to avoid problems when one drinks and has to drive.

3. *What Everyone Should Know about Alcohol*. Greenfield, Massachusetts: Channing L. Bete Co., Inc., 1974.

   In a question and answer format this booklet describes what alcohol is, how it affects people, why people drink, stages of intoxication, consequences of alcohol abuse, and symptoms of alcoholism. Very informative and concise.

4. Kenton, William L. *Understanding Alcoholism*. Lansing, Michigan: Michigan Department of Public Health Alcoholism Program, 1965.

   A down-to-earth discussion of alcoholism—what it is and what it is not. Factual concepts are presented on all stages an alcoholic usually goes through. In addition, symptoms of each stage are explained in detail for early identification. Teachers and students will find this pamphlet useful when dealing with alcoholism.

5. McCarthy, Raymond G. *A Discussion Guide for Questions about Alcohol: No. 3, Individual Attitudes toward Alcohol*. New Brunswick, N.J.: Rutgers Center for Alcohol Studies, Rutgers University, 1956.

   Provides a concise description of aspects of attitude development, factors which influence the development of attitude, socialization, and individual attitudes toward alcohol and alcoholism. It is a helpful source for teachers of driver education, and alcohol and drug education to learn about attitude development in various stages of life.

6. Hancock, David C. *I Can't Be an Alcoholic because...Fallacies and Misconception about Alcoholism*. Lansing, Michigan: Michigan Alcohol and Drug Information Foundation, 1969.

Six misconceptions about alcoholism are explained and facts given to provide a better understanding of alcoholism and its symptoms and problems. The six fallacies and facts are:

A. Fallacy: I can't be an alcoholic because I am not a skid row bum.

Fact: False

In the United States the so-called skid row bum represents only 3 percent of the 6 to 6½ million alcoholics; the other 97 percent are "ordinary" people. Most of them still have good jobs, are maintaining their families, and are "getting along," although often having a difficult time of it because of drinking.

B. Fallacy: I can't be an alcoholic because I never drink before 5:00 p.m.

Fact: False

Alcoholism is not concerned with when one drinks; rather, whether one can control the amount drunk determines whether he or she has a drinking problem. Anyone who "just has to have a drink"—no matter when (at lunch, after work, before dinner, at bedtime)—is in danger of becoming dependent upon alcohol. From dependence upon alcohol it is not far to addiction. To test whether you can control yourself, try never taking a drink when you "need" one.

C. Fallacy: I can't be an alcoholic because I never drink anything but beer.

Fact: False

Many people mistakenly believe that the low alcoholic content of beer reduces the danger of intoxication or addiction and that beer is less intoxicating or addicting than gin, whiskey, vodka, or wine.

There is about as much ethyl alcohol, to which the alcoholic is "allergic," in an average can of beer as there is in a 4-ounce glass of wine or a 1-ounce shot of whiskey. For example, a 12-ounce serving of 4½ percent beer contains .54 ounce of absolute alcohol. A 1-ounce shot of 100 proof whiskey (which is about 50 percent alcohol) contains half an ounce of absolute alcohol. An ordinary 4-ounce glass of wine (with a 15 or 20 percent alcoholic content) contains .60 or .80 ounce of absolute alcohol.

D. Fallacy: I can't be an alcoholic because I drink only on the weekends.

Fact: False

Again, it is not when or how often one drinks that determines whether a person has a drinking problem. Rather, it is whether the person is able to control drinking when he or she does drink.

Some alcoholics can stay "dry" for weeks, even months or years.

A person may drink only on weekends, but if that person often gets drunk on weekends, he or she certainly has a drinking problem. Or, if drinking causes

the person continuing difficulty in any area of life—job, family, health—or is costing more money than he or she can afford, the person needs help.

E. Fallacy: I can't be an alcoholic because I am too young.

Fact: False

It is not your age nor how many years you have been drinking, but what drinking is doing to you and whether you have control over it, which determines whether alcohol is a problem.

Loss of control can occur anytime in a person's drinking history. An 18-year-old might find that every time he or she drinks he or she becomes intoxicated, although not wanting or intending to. That person is an alcoholic.

F. Fallacy: I can't be an alcoholic because I can quit anytime.

Fact: False

When a person decides to "go on the wagon," it is undoubtedly because drinking is giving that person trouble.

A drinker who is not an alcoholic does not need to go on the wagon, for he or she is always able to control drinking. The alcoholic goes on the wagon to try to prove to self and others that he or she can control drinking or even go without it. Inevitably, the person is unable to do it indefinitely. For the person who has lost control with drinking there is no compromise with abstinence; that person will never be able to drink safely again.

To test yourself: How do you feel during periods of forced abstinence from alcohol? Are you happy, calm, relaxed, even-tempered? Or are you nervous, tense, easily frustrated, irritable, resentful, anxious, lonely? If any of the latter descriptions describes you, then you are simply on what members of Alcoholic Anonymous call a "dry drunk." With this kind of attitude you sooner or later will resume drinking and it will inevitably cause you trouble again.

Lesson 4

Drugs, Other Than Alcohol: Types, Uses, and Effects

Lesson Goal: Students will distinguish between drug use and abuse.

Students will develop an understanding of types of drugs and their effects on the user.

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A. Drug Use versus Drug Abuse

Objective: Students will state the difference between drug use and drug abuse.

Students will list at least five factors that contribute to drug abuse.

Content:

In Lesson 1, three general categories of drugs other than alcohol were identified: over-the-counter drugs, prescription drugs, and illicit drugs. Illicit drugs include drugs from the first two categories that are obtained illegally as well as those for which there is no licit medical use. Among the many drugs that are available today, comparatively few have no legal medical uses.

All drugs, whether obtained legally or illegally, affect the user and should be considered in any study of drugs and traffic safety.

There are both proper and improper uses of drugs other than alcohol. When a legally obtained drug is used for its intended purposes according to the manufacturer's or physician's directions, it is being used properly.

There are several ways that drugs can be used improperly, or abused:

1. using a legal drug in much larger amounts or more frequently than called for in the directions;

2. using a legal drug for a different purpose than that for which it is intended—usually to produce euphoric effects;

3. obtaining a legal drug illegally and repeatedly self-administering it to produce euphoric effects; and

4. obtaining and using any illegal drug or substance for which there is no valid medical use (such as glue vapors) to produce mood or mind altering or euphoric effects.

Drug abuse is not a new phenomenon. Varying forms of drug abuse have been present for years in the United States and in other countries. However, drug abuse has increased in recent years, especially among young people.

According to several government studies, young people are most likely to use illicit drugs, at least on an experimental basis. A survey of high school seniors conducted by the National Institute of Alcohol and Drug Abuse in 1977 showed that six out of every ten seniors had used an illicit drug at least once. Except for alcohol and tobacco, marijuana was the most widely used.

There are many reasons for the current epidemic of drug abuse. Many drugs temporarily allow their users to evade frustrations, to lessen depression and feelings of alienation, or to "escape" from what they perceive to be unpleasant circumstances. Such misuse of drugs, of course, does not produce any improvement in the problems of the individual or society; it is a flight from problems.

Some of the factors that contribute to drug abuse or that are cited by drug abusers as reasons for their behavior include:

1. the widespread belief that medicines can magically solve problems;
2. the easy access to drugs of various sorts in an affluent society;
3. curiosity about the effects that drugs produce;
4. the search for enjoyment, euphoria, or excitement that some people feel are induced by drugs;
5. peer pressure that leads individuals, especially young people, to conform to current styles in dress, behavior, entertainment, and activities (including drug use);
6. a search for sharpened perception, heightened creativity, or spiritualism that some people believe they obtain from mind-altering drugs;
7. boredom or lack of meaningful interests or activities;
8. the social context in which drugs, especially marijuana, play a role similar to that of alcohol;
9. dissatisfaction or disillusionment with the prevailing social system and apparent lack of alternatives that are meaningful to the "counter culture";
10. the tendency of people with psychological problems to seek easy solutions with chemicals;
11. the feeling of hopelessness caused by poverty or other conditions for which there is no perceivable solution; and
12. the statements of people who make drug use sound appealing.

Note: Information about drug abuse symptoms is provided under "Supplementary Readings for Lesson 4."

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 4: 1, 2, and 6 (pp. 80-82).

Evaluation:

Use evaluation items 1, 2, and 6 (p. 83).

B. Variations in Drug Effects

Objective: Students will describe the three types of single drug effects and the three types of drug interaction effects.

Content:

Any drug that enters the body must be metabolized, or chemically changed by body enzymes, to be eliminated from the body. New chemical compounds are created in the process of metabolism. In many cases, the new compounds have their own effects on the body. Therefore, in most cases, there is more than one type of effect on the user. The types of effects that may result from drug use are described below.

Therapeutic effect:	the desired effects (if any) for which the drug is administered
Side effects:	effects that occur in addition to the desired effects, often as a result of metabolism
Residual effects:	the post-use effects that occur when use of the drug stops. These effects are often called "let-down," "withdrawal," or "hangover."

In addition, combining two or more drugs (and this includes alcohol) may produce drug interaction effects, of which there are three types:

Additive effects:	When the total combined effects of two or more drugs are simply the sum of their individual effects, the effects are termed additive. Additive effects are predictable.
Antagonistic effects:	When the effects of one drug reduce the effects of another drug, their combined effects are termed antagonistic.
Synergistic effects:	When the combined effects of two or more drugs are greater than the sum of their individual effects, the result is termed synergism or potentiation. Potentiating or synergistic effects are unpredictable and therefore are among the most dangerous for drivers.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 4: 2, 3, and 7 (pp. 80-82).

Evaluation:

Use evaluation item 3 (p. 83).

C. Variations in Response to Drugs

Objective: Students will describe three types of differences in individual responses to drugs.

Content:

In addition to variations in the effects of the single drugs and drug combinations, there are individual response differences that are difficult to quantify.

Chronic Use Tolerance or Compensation

Some people who take a drug regularly over a long period of time develop a tolerance to its side effects or learn to compensate for those effects. Diabetic insulin use is an example of this.

Differences in Individual Response

Individuals respond differently to a given dosage of a given drug. This may be due to differences in weight, health, metabolic rate, or other personal factors. Further, an individual may respond differently to the same dosage from one time to the next, depending on the person's physiological and phychological state. That is, amount of rest, mood, setting, state of health, and other factors can influence how a person responds to a drug.

Effects of Time on Concentration Level

Drugs have minimum and maximum effective concentration levels. These are the least and the greatest amounts of the drug that can be expected to produce the desired results in the average person. These levels are reached over a period of time. Generally, the sequence of events over time is: 1) the drug is taken, 2) a period of lag time occurs with no effects produced, 3) the minimum effective level is reached, 4) the effect increases to the maximum level, and 5) the effect decreases as the drug is metabolized and eliminated. Individuals differ in the rate at which this sequence takes place in their bodies.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 4: 5 and 7 (pp. 80-82).

Evaluation:

Use evaluation item 4 (p. 83).

D. Types of Drugs and Their Effects

Objective: Students will describe the three major categories of drugs, identify at least three drugs in each category, and describe their effects on the user.

Content:

There are three major categories of drugs: depressants, stimulants, and hallucinogens. The overall effects of these groups of drugs are implied by their names: they depress, stimulate, and cause the user to hallucinate, respectively. Types of drugs within these categories are discussed in general terms below. Some of the most common drugs in each group are presented following the general discussion.

Depressants

Barbiturates sedative-hypnotics. This is the largest group of widely used and abused drugs. Barbiturates are considered dangerous because users can develop a tolerance for some of them. The combination of barbiturates and alcohol is a leading cause of accidental and suicidal deaths.

Tranquilizers and antidepressants. Also known as "downers," these drugs are widely available and are taken by many people for relief of tension. Although available through prescription, many tranquilizers are illegally purchased on the street. Taken for a long time, these drugs can result in dependency, and withdrawal can be difficult. Some tranquilizers can affect a person's tolerance for alcohol. When the drug is combined with alcohol, circulatory and respiratory collapse can occur.

Narcotic analgesics (opiates). Some narcotic analgesics, or opiates, have legitimate medical uses. Paregoric is used to relieve bowel spasms. Codeine is used in cough medicines. Morphine is used to relieve pain. Opium and heroin have no medical use. Opiates can cause nearly hopeless addiction.

Heroin is the most commonly used opiate. When first used, heroin produces a feeling of peace, contentment, and safety. However, users can easily become addicted and subsequently develop a tolerance for the drug. Therefore, it takes stronger doses to produce the same euphoric feeling.

Volatile chemicals. The fumes of glue, gasoline, aerosal sprays, benzene, and paint and varnish thinners are inhaled to produce euphoric effects. There is no medical use for these substances. This form of drug abuse is commonest among young teen-agers and is often permanently damaging to the brain.

Stimulants

Amphetamines. Also known as "uppers," amphetamines increase heart rate, raise blood pressure, constrict blood vessels, increase muscle tension, and stimulate the adrenal glands. These reactions combine to produce alertness, wakefulness, and attentiveness, all of which are characteristics of the stress reaction. People who have taken amphetamines are talkative and hyperactive; often experience nervousness, increased motor activity, a lack of hunger, insomnia, and dizziness; and have feelings of euphoria

and increased mental and physical power. Medical prescription of these drugs has decreased in the past several years because it is easy for users to develop a psychological dependence on them.

Local anesthetics. Cocaine is a local anesthetic that is often abused. It is sniffed, swallowed, or injected to produce euphoria and intense excitement. Cocaine is potentially psychologically addicting.

Hallucinogens

Hallucinogens are drugs that alter visual and auditory perceptions by affecting the central nervous system. They include such drugs as marijuana, LSD, psilocybin (PCB), DMT, and STP. They all have the effects of distorting and altering perception. Moreover, the experiences resulting from use of these drugs are often disturbing and can leave lingering psychological problems or unexpected mental distortions long after their use.

Marijuana. There is much controversy over the effects of marijuana. Although marijuana has some limited experimental medical use (easing of the side effects of cancer chemotherapy and treating glaucoma), its predominant use is illicit. It is the drug most commonly abused by teen-agers. Some people claim that marijuana is safer than alcohol because users cannot become physically addicted to it nor can they build a tolerance for it. Other people claim that marijuana is not at all safe, since so little is known about its long-term effects on the user.

Medical studies of the effects of marijuana are difficult to interpret because (1) the strength of tetrahydrocannabinol (THC), the active ingredient, is so variable and (2) individual reactions to the drug vary widely. The combined effects of marijuana and alcohol are synergistic.

The specific effects of the most commonly used drugs other than alcohol are presented in the following chart. Effects of these drugs on the driving task are discussed in Lesson 5.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 4: 2, 4, 7, and 8 (pp. 80-82).

Evaluation:

Use evaluation item 5 (p. 83).

Suggested Learning Activities for Lesson 4

Students	Teacher
1. Class Discussion Discuss different aspects of drug abuse and the effects of drugs on the abuser, using the content of the film as a starting point. Following the discussion, write a statement expressing personal attitudes toward drugs, drug abuse, and drug addiction, attempting to develop some personal guidelines in dealing with these issues (i.e., how to avoid being physically dependent on drugs, what can be done to prevent drug abuse among young adults, teenagers, and so on).	1. Show any of these films: • *Are Drugs the Answer?* • *Beyond LSD* • *Get High on Life* • *Hey Baby* • *Holy Smoke* • *Drugs, Drinking, and Driving* • *Your Amazing Mind* Participate in and help lead group discussion.
2. Class Speaker and Discussion Participate in the class discussion, asking questions to clarify understanding of the topic.	2. Invite a guest speaker (a police officer, a worker from a drug treatment center or crisis intervention center, a former drug user, a doctor, a scientist, or other) to discuss issues such as the following: (a) factors that contribute to drug abuse, (b) problems associated with drug dependency, and (c) the psychological, behavioral, and physical effects of drugs on the user, especially on the ability to drive.
3. Research on Effects Conduct research about specific drugs to learn the therapeutic, side, and residual effects and their interaction with alcohol.	3. Have each student select a drug as the topic of research.

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Students	Teacher
4. Research and Report Conduct a study at the police department or Bureau of Motor Vehicles, attempting to learn the number of people involved in traffic accidents who were using drugs at the time of the accident. Alternatively, interview individual officers of the police and sheriff departments, or the highway patrol to learn their personal experiences with drug-involved accidents. Report findings to the class.	4. Assign the research project. Make advance contact with the office or agency involved to clear the way for the students performing the research. Prepare the class for the researchers' presentations of the facts.
5. Group Discussion Participate in a discussion of individual differences in response to drugs. Why would these differences make research on drugs and driving difficult? How is this different from responses to alcohol?	5. Present the information in Module C and lead the discussion.
6. Group Discussion Participate in group discussion of legal restrictions on drugs.	6. Lead the group discussion of proper use of prescription and nonprescription drugs. Sample discussion questions: • Why do you need a prescription to purchase some drugs legally? • Do you think such restrictions are necessary? Why? • What other restrictions (traffic safety laws, civil laws, others) might serve to protect members of society?

Students	Teacher
7. Group Study or Research In small groups, do in-depth studies of particular types of drugs. Topics may include the nature and characteristics of the drug, description of the drug in original form and in forms in which it is sold, slang names, medical use (if any), abuse of the drug, effects of the drug on an individual (intended effects and side effects), differences in reactions to the drug, minimum and maximum concentration levels, and the effects of the drug on the driving task.	7. Divide students into small groups. Assign or have students select types of drugs on which to do in-depth studies. Act as a resource person. If possible, meet in advance with the librarian to explain the research to be done and identify sources. Set the stage for presentation of reports.
8. Research and Debate or Paper Many states have eased laws prohibiting marijuana, and the legalization of the drug is being debated. Research the issues, checking current periodicals and newspapers for recent developments. Consult physicians, lawyers, and law enforcement officers. Use these facts to prepare for a debate or presentation of a paper on the impact on driving that the legalization of marijuana might have.	8. Assign the project and act as a resource person. Set the stage for presentation of papers or moderate the debate.

Evaluation for Lesson 4

1. Ask students to state the difference between drug use and drug abuse.

2. Have students list at least five factors that contribute to drug abuse.

3. Have the students write definitions or descriptions of the following terms: therapeutic effects, side effects, residual effects, additive effects, antagonistic effects, and synergistic effects.

4. Ask students to explain the three types of differences in individual reactions to drugs.

5. Ask students to name the three major categories of drugs, list at least three drugs in each category, and describe the effects of each drug (or of the combination of the drug and alcohol) on the user.

6. Have students write a short paper or statement describing their own attitudes or values toward drugs and drug abuse after having been exposed to the lesson.

Supplementary Readings for Lesson 4

National Clearinghouse for Mental Health Information. *Resource Book for Drug Abuse Education*. Chevy Chase, Maryland: National Institute of Mental Health, 1969.

Five major areas of drug education are included in this valuable resource book for teachers. The five areas covered are: teaching about drugs, facts about drugs, supplementary reports on drugs, drug films, and how to plan a drug abuse education workshop. Each area consists of articles by doctors and educators dealing with several aspects of the area. For example, topics covered under teaching about drugs range from knowledge of background considerations for drug programs to how we can teach adolescents about smoking, drinking, and drug abuse. This book should provide sufficient basic knowledge needed by teachers planning a program or a course in alcohol and drug education. especially for junior and senior high schools.

American Association of Sheriff Posses and Riding Clubs. *Drug Abuse: Don't Flirt with a Living Death*. Dallas, Texas: American Association of Sheriff Posses and Riding Clubs.

This pamphlet provides basic information about such drugs as marijuana, amphetamines and barbiturates, LSD, and narcotic drugs in detail. In a question and answer format it deals with such aspects as what the drug is, its use, how the drug works, what physical and psychological effects it has on users, and legal aspects of the drug. The second section deals with answers to the most frequently asked questions about drug abuse which can be used beneficially with students in junior and senior high schools. This is a useful pamphlet for educators and teachers working with drug education.

Blue Cross and Blue Shield in Ohio. *Drug Abuse: The Chemical Cop-Out*. Columbus, Ohio: Blue Cross and Blue Shield, 1970.

In nontechnical language, this booklet discusses various drugs now on the market—marijuana, amphetamines, metamphetamines, barbiturates, hallucinogens, LSD, and hard narcotics. Topics include drug scenes, abuse of drugs, medical use of drugs, effects of drugs, and treatment of drug addicts. In addition, drug traffic, profits and process of producing some of these drugs are discussed.

From Department of Public Safety, State of Texas

Teachers and Parents ALERT

Drug Abuse Problems of Identification

Common Symptoms of Drug Abuse

(1) Changes in school attendance, discipline, and grades.
(2) Changes in the character of homework turned in.
(3) Unusual flare-ups or outbreaks of temper.
(4) Poor physical appearance.
(5) Furtive behavior regarding drugs and possessions.
(6) Wearing of sunglasses at inappropriate times to hide dilated or constricted pupils.
(7) Long-sleeved shirts worn constantly to hide needle marks.
(8) Association with known drug abusers.
(9) Borrowing of money from students to purchase drugs.
(10) Stealing small items from school.
(11) Finding the student in odd places during the day such as closets or storage rooms to take drugs.

Manifestations of Specific Drugs

The Glue Sniffer

(1) Odor of substance inhaled on breath and clothes.
(2) Excess nasal secretions, watering of the eyes.
(3) Poor muscular control, drowsiness, or unconsciousness.
(4) Presence of plastic or paper bags or rags containing dry plastic cement.

The Depressant Abuser . . .(Barbiturates—"Goof balls")

(1) Symptoms of alcohol intoxication with one important exception: no odor of alcohol on the breath.
(2) Staggering or stumbling in classrooms or halls.
(3) Falling asleep in class.
(4) Lack of interest in school activities.
(5) Drowsiness and disorientation

The Stimulant Abuser . . .(Amphetamines—"Bennies")

(1) Excess activity—student is irritable, argumentative, nervous, and has difficulty sitting still in classrooms.
(2) Dilated pupils.
(3) Dry mouth and nose with bad breath, causing user to lick his or her lips frequently and rub and scratch his or her nose.
(4) Chain smoking.
(5) Long periods without eating or sleeping.

The Narcotic Abuser . . .(Heroin—Demerol—Morphine)

These individuals are not frequently seen in school. They usually begin by drinking paregoric or cough medicines containing codeine. The presence of empty bottles in wastebaskets or on school grounds is a clue.

(1) Inhaling heroin in powder form leaves traces of white powder around the nostrils, causing redness and rawness.
(2) Injecting heroin leaves scars on the inner surface of the arms and elbows ("main-lining"). This prompts the student to wear long-sleeved shirts most of the time.
(3) Users often leave syringes, bent spoons, cotton, and needles in lockers. This is a tell-tale sign of an addict.
(4) In the classroom the pupil is lethargic, drowsy. Pupils are constricted and fail to respond to light.

The Marijuana Abuser

Marijuana users are difficult to recognize unless under the influence of the drug at the time they are being observed.

(1) In the early stages student may appear animated and hysterical with rapid, loud talking and bursts of laughter.
(2) In the later stages the student is sleepy or stuporous.
(3) Depth perception is distorted, making driving dangerous.

Note: Marijuana cigarettes are rolled in a double-thickness of brown or off-white cigarette paper. These cigarettes are smaller than a regular cigarette with the paper twisted or tucked in at both ends, and with tobacco that is greener in color than regular tobacco. The odor of burning marijuana resembles that of burning weeds or rope. The cigarettes are referred to as reefers, sticks, texas tea, pot, rope, Mary Jane, loco weed, jive, grass, hemp, or hay.

The Hallucinogen Abuser

It is unlikely that students who use LSD will do so in the school setting since these drugs are usually used in a group situation under special conditions.

(1) Users sit or recline quietly in a dream or trance-like state.
(2) Users may become fearful and experience a degree of terror which makes them attempt to escape from the group.
(3) The drug primarily affects the central nervous system, producing changes in mood and behavior.
(4) Perceptual changes involve senses of sight, hearing, touch, body image, and time.

Note: The drug is odorless, tasteless, and colorless and may be found in the form of impregnated sugar cubes, cookies, or crackers. LSD is usually taken orally but may be injected.

Lesson 5

Drinking, Drugs, and Driving

Lesson Goal: Students will develop an understanding of the effects of alcohol and other drugs on abilities related to the driving task.

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B. The Effects of Alcohol on Functioning of the Eyes 91

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A. The Effects of Alcohol on Driving Skills

Objective: Students will cite evidence that drinking greatly increases the probability of a driver being involved in a traffic accident.

Students will describe the effects of alcohol on skills needed to perform the driving task safely.

Content:

A study by the Department of Police Administration at Indiana University shows that the relative probability of a driver causing a traffic accident increases with the amount of alcohol consumed, as measured by Blood Alcohol Concentration (BAC). For a BAC of .02 percent, the probability of having an accident seems to be no greater than that for a BAC of .00 percent. However, when the BAC reaches .08 percent, the probability of having a traffic accident is 5 times greater than that for a BAC of .00 percent. At a BAC of .12 percent, the accident probability is about 12 times greater; and at a BAC of .15 percent, the probability is about 25 times greater. These and other facts presented in earlier lessons leave no doubt that it is dangerous to drink and drive.

The physiological and behavioral effects of alcohol include impaired judgment, slower reaction time, and poorer vision. These effects all have consequences for the driving task.

Impaired Judgment

One of the first effects of alcohol is reduction in inhibitions followed by impairment of judgment (see illustration 4A, arrow 1). Because of this, the drinking driver tends to overestimate his or her driving skills and is more likely to drive recklessly and to take unnecessary risks than is the sober driver.

Even professional driving experience cannot make up for this alcohol impairment. This was demonstrated in a test of driving skill in which professional race and rally drivers were used as subjects. A pretest was administered to establish baseline performance levels. It was found that the best of the pros made 7 errors in the pretest. None of the drivers felt that the amount of alcohol they were going to drink would greatly affect their driving performance. However, during the posttest, after moderate drinking, the best drivers made 22 errors. When intoxicated, the best drivers made 42 errors. These errors included driving too fast, wavering out of lane markings, judging distance inaccurately, running through traffic lights and stop signs, not adjusting speed to roadway changes, and making unnecessarily abrupt stops.

Slower Reaction Time

Drivers who have been drinking also exhibit slower reaction time. Alcohol's effects on both the association areas (areas controlling high-level thought processes) and motor areas of the brain, as well as its relaxing effects upon the muscles, contribute to this symptom (see illustration 4A, arrow 2). After consuming a few drinks, a young person will have even slower reflexes. In situations that require split second responses, these slower reaction times could be deadly. According to a study by the National Public

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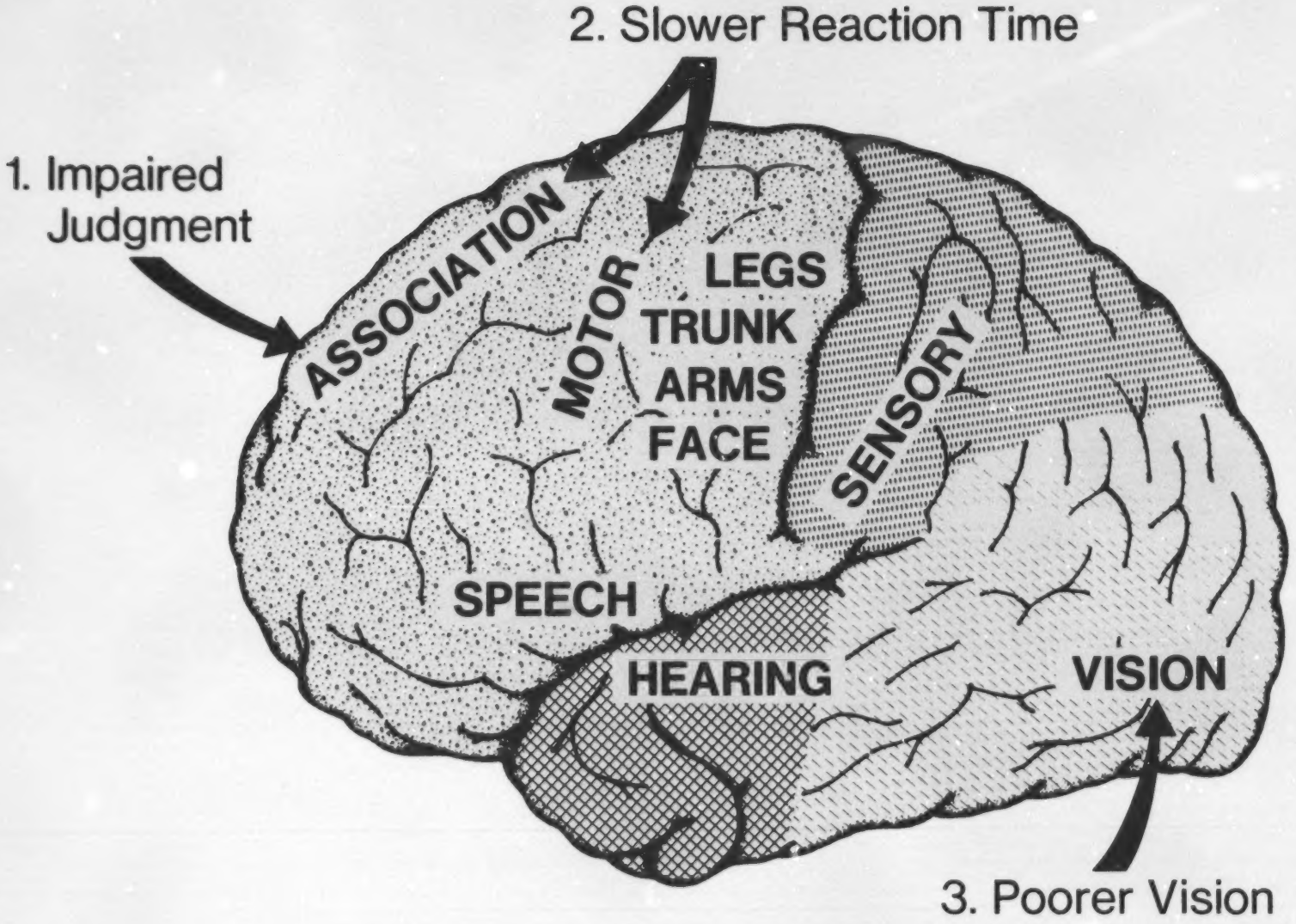
2. Slower Reaction Time
1. Impaired Judgment
ASSOCIATION
MOTOR
LEGS
TRUNK
ARMS
FACE
SENSORY
SPEECH
HEARING
VISION
3. Poorer Vision

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Service Research Institute, over half the teen-agers involved in alcohol-related accidents had BAC's of only .02 percent, the level produced by one drink. This level is legally defined as sober.[6]

Poorer Vision

As alcohol affects the brain, it also affects other parts of the body, such as muscles, causing them to relax. This is a critical factor in vision (see illustration 4A, arrow 3). Visual impairment caused by drinking can happen after a person consumes very few drinks, thereby reducing one's ability to perform the driving task safely. Effects of alcohol on vision are described in greater detail in Module B.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 5: 1, 2, and 3 (pp. 97-99).

Evaluation:

Use evaluation item 1 (p. 102).

[6]Garretson, op. cit., p. 14.

B. The Effects of Alcohol on Functioning of the Eyes

Objective: Students will describe the effects of alcohol upon the pupil, lens, and retina of the eyes.

Students will describe the effect of alcohol upon binocular and peripheral vision.

Content:

Effects of Alcohol on the Pupil

The pupil of the eye, the opening that controls the entry of light into the eye, is governed by small muscles. Normally, the eye can close against glare in one second. Then the pupil takes about seven seconds to open again. This reaction time is slowed substantially by alcohol. An individual who has been drinking can be temporarily blinded by light at night because of the slowed action of the pupils.

Effects of Alcohol on the Lens

The lens is the portion of the eye that focuses. The muscles controlling the lens of the eye are also relaxed by alcohol, making focusing difficult. Therefore, the image received by an individual who has been drinking may not be clear.

Effects of Alcohol on the Retina

The retina is the portion of the eye that receives the image formed by the lens. It is the immediate instrument of vision. The retina contains rods and cones. Together, they detect light, dark, and color. Alcohol reduces the supply of oxygen to the cones. This, in turn, reduces visual sharpness. In dim light, acuity is reduced even more.

Effects of Binocular Vision

The muscles of the two eyes work together to focus both eyes on the same point. If these muscles are relaxed by alcohol, focusing becomes more difficult and double vision can result.

Effects on Peripheral Vision

Peripheral vision is also reduced as eye muscles become relaxed by alcohol, creating a narrowed range of sight. Narrowed sight becomes even more significant when drivers who have been drinking attempt faster driving speeds. Such drivers are less likely to see approaching cars, lights, and obstructions. They are therefore more likely to have accidents.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 5: 1, 2, 3 (pp. 97-99).

Evaluation:

Use evaluation item 2 (p. 102).

C. Avoiding Problems Caused by Drinking and Driving

Objective: Students will list what can be done by drivers themselves, by hosts and hostesses, and by friends of drivers to avoid the consequences of drunk driving.

Content:

What Drivers Can Do

Publications about the effects of alcohol on the driving task and statistics about alcohol-related traffic accidents show that people should not drive if they have been drinking. In today's society, however, people still drive to places where they will drink and then drive home. What can these people do to avoid the risk of accidents? Following are some suggestions.

1. Set a limit on drinks and stick to it.
2. Drink in a leisurely, unhurried way to give the body time to oxidize the alcohol.
3. Eat while you drink.
4. Stop drinking an hour or two before driving.
5. Ask a friend or relative who is sober to drive.
6. Arrange for a taxi ride home.
7. Don't drink every time. Arrange a buddy system with friends, taking turns abstaining and driving home.

What Hosts and Hostesses Can Do

Hosts and hostesses at gatherings where people are drinking have a moral, and sometimes legal, responsibility to see that their guests do not drive if intoxicated. There are several things that responsible, thoughtful hosts and hostesses can do to minimize the effects of alcohol on their guests.

1. Make rich snacks or a meal part of the party. Food can slow down the absorption of alcohol into the system. Also, eating gives people something to do besides drinking, so they may drink less.
2. Make mixed drinks of normal size. Don't serve doubles.
3. If guests are going to serve themselves, keep a jigger or two handy at the bar. People are less likely to drink to excess if standard measures are used.
4. If punch is served, don't use a carbonated base. Alcohol is absorbed much faster when combined with a carbonated drink. Fruit juice is a better mixer. Be sure to have some nonalcoholic drinks available, too.

5. Don't have a lot of bottles sitting around prominently at the party. It might make it seem as if drinking is the focus of the gathering and lead people to believe that heavy drinking is expected.

6. Make sure that there is a variety of activities other than drinking, such as eating, games, and dancing. This makes for a better party and for fewer drinking-related problems afterwards.

7. If a guest is drinking heavily, ask the guest to slow his or her rate of consumption or try to divert his or her attention to another activity. Offer to mix the next drink and make it a weak one.

8. Stop serving drinks about an hour before the party is to end. Switch to coffee or tea. This will give all the guests a buffer of time to allow the body to oxidize any remaining alcohol. Stand firm if some of the guests try to insist on drinking until the end of the evening.

9. Don't pressure guests to drink or insist on refilling the glass as soon as it is empty.

What To Do if a Person Is Drunk

If a person is drunk and insists upon driving, there are several things the host or hostess can do, some more drastic than others. It is important to remember that human lives are at stake.

1. Point out reasons why the person should not drive. Remind the person that arrest for driving while intoxicated can result in a jail sentence, loss of license, and an increased insurance premium.

2. Occupy the person until he or she has had time to sober up.

3. Propose alternatives to driving. Drive the person home, have someone who is sober drive, or call a taxi.

4. Take the car keys from the driver or take the coil wire off the car if necessary.

5. Physically restrain the driver, if necessary.

6. Call the police.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 5: 4, 5, 6, 7, and 8 (pp. 97-99).

Evaluation:

Use evaluation items 3, 4, 5, and 6 (p. 102).

D. Effects of Other Drugs on Driving

Objective: Students will describe the possible effects of various drugs other than alcohol on driving skills.

Content:

Variations in drug effects and in individual responses to drugs have made it difficult to collect conclusive data on the impact of drugs other than alcohol on traffic safety. Furthermore, tests for the presence of drugs in a driver's body are not well developed. When the presence of a drug can be determined, statements about the level of its effect are inconclusive.

Nonetheless, many studies have reported deteriorating effects of common dosages of specific drugs on skills believed to be associated with the driving task (reaction time, depth perception, visual acuity, peripheral vision, glare recovery, and steadiness). Further, the very unpredictability of drug effects is good reason for the driver to be aware of potential effects of drugs—both licit and illicit—on the driver. Described below are known or suspected effects of various drugs that may affect a driver's ability to drive safely.

Antihistamines

Over-the-counter and prescription antihistamines, including cold, cough, sinus, and hay fever medications, are so widely taken that many people are tempted to ignore the warnings printed on their labels: "May cause drowsiness. Do not drive a car or operate machinery after use." These drugs, even when taken in the recommended dosages, have a sedative effect that can alter perception and slow down reflexes that are essential to competent driving. When taken in combination with alcohol, these sedative effects are amplified.

Individuals should carefully note their reactions to such over-the-counter drugs and plan their driving accordingly.

Depressants

Depressants have been shown to impair driving performance, primarily because they produce drowsiness, extreme relaxation, and the ability to concentrate.

Tranquilizers or "downers"

The effects of "downers" on the nervous system are similar to those of alcohol. The user passes through the stages of relaxation, release of social inhibitions, slurred speech, loss of motor control, and eventually sleep. When combined with alcohol, the synergistic response magnifies these symptoms.

Tranquilizers impair an individual's ability to drive much the same as alcohol does. Fine muscle movement in the eye and use of other muscles are impaired as the muscles are relaxed. At the same time, an unwarranted feeling of competence and euphoria is produced in the person, altering judgment.

Barbiturates

Barbiturates also produce an effect on the central nervous system similar to that of alcohol: coordination, perception, and fine muscle control are impaired by their use. The user may experience feelings of euphoria and may falsely interpret his or her ability to drive safely. Combined with alcohol, the effects are synergistic. Barbiturates can cause users to become drowsy and fall asleep behind the wheel.

Narcotic analgesics (opiates)

Driving while under the influence of heroin and other opiates is dangerous because apathy and stupor are produced and judgment and reflexes necessary for the driving task are impaired.

Glue sniffing

The euphoria, intoxication, and possible delirium caused by sniffing glue or other volatile chemicals make driving risky after experiencing the drug.

Stimulants

The effects of stimulants on driving are less clear. Experimental studies have produced conflicting results. However, some stimulants have been shown to impair driving performance in some situations, primarily because of irritability, overactivity, overestimation of abilities, and lack of concentration.

Amphetamines

Amphetamines can be dangerous to drivers because they give the driver a false feeling of alertness and self-confidence. Sometimes drivers, especially people who drive professionally, try to stretch their driving time artificially by using amphetamines. This is a dangerous practice because drivers need to be able to gauge accurately their true ability to react so that they do not take unnecessary risks. Amphetamines can also cause irritability which can lead to faulty judgment.

Hallucinogens

Driving while using hallucinogens can be a very dangerous practice. The person's perception of reality is distorted, so motor coordination and visual perception may have little relation to the driver's real situation. It has been suggested that this may be a greater traffic safety problem with marijuana because marijuana users tend to overestimate their abilities to drive while taking the drug. The effects of stronger hallucinogens such as LSD, on the other hand, are so disorienting that the user may be less tempted to drive while on LSD.

Marijuana

Various studies have been conducted on the effects of marijuana on driving skills. Results have been mixed. Some conclude that it is dangerous to drive after using marijuana.

Since marijuana is a mild hallucinogen that can act as either a stimulant or a depressant, individual reaction to the drug depends a great deal on the user's mood and drug experience.

Several studies have shown that the use of marijuana adversely affects visual perception and hand and body steadiness and distorts one's sense of time. The effects on visual perception and timing are especially crucial to the driving task. According to a Canadian study, "the smoking of marijuana by human subjects had a detrimental effect upon their driving skills and performance in a restricted driving area; this effect was even greater under normal conditions of driving on city streets."

Other studies have shown that marijuana did not affect a driver's visual search ability but it did impair the driver's ability to coordinate visual search with steering and controlling the car.

In one survey in which chronic marijuana users, infrequent users, and former users reported how marijuana affected them,

- all subjects said that the drug downgraded their ability to judge and slowed their reactions;
- chronic users were less affected than the others;
- 65 percent of the infrequent and former users reported that marijuana decreased their ability to control a car;
- 18 percent of the chronic users said it decreased their ability to control a car; and
- 75 percent of the infrequent users and 50 percent of the chronic users said that their ability to respond to emergency situations was impaired by uses of the drug.

When marijuana and alcohol are used together, the effect is synergistic. One researcher demonstrated this by using subjects who had, at different times, been given a low dosage of marijuana and a low dosage of alcohol. In each case, the subjects showed little impairment of psychomotor skills needed for driving. However, when these low dosages of marijuana and alcohol were combined and the subjects again tested, the combination of alcohol and marijuana resulted in much worse performance than that observed with either drug alone.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 5: 4, 6, and 8 (pp. 97-99).

Evaluation:

Use evaluation items 6 and 7 (p. 102).

Suggested Learning Activities for Lesson 5

Students	Teacher
1. Discussion Participate in a discussion of the effects of alcohol on driving skills.	1. Present the information in Module A for discussion. Possible discussion questions: How would impaired judgment, slower reaction time, or poor vision detract from your driving ability? How would you feel about riding with a driver whose judgment was impaired, reaction time slowed, or vision was poor?
2. Drawing and Explanation Prepare a large drawing of the cerebral cortex for classroom display. Label the functions located in various parts of the brain. Explain how impairment of these functions affects the driving task.	2. Offer assistance and direction as needed.
3. Vision Demonstration Allow two or three students to volunteer as subjects and describe their experiences to other students. The whole class should participate in the discussion that follows.	3. Conduct a demonstration. Using a powerful flashlight in a darkened room, flash the beam into the eyes of volunteers and have them describe to the other students the reactions of their eyes (or the effects on their sight) as they occur. Measure the time it takes to restore normal vision. Provide pictures or print for them to describe or read, illustrating visual acuity at different points in the demonstration. Discuss the effect that alcohol could have on the muscle that controls restoration of normal vision after a glare.

Students	Teacher
4. Discussion of Situations In smaller groups or as a whole class discuss the situations and issues on Resource Sheets D and E, using the discussion questions provided. Report conclusions to the rest of the class (if divided into groups).	4. Divide the class in half (one situation per group) if desired. Present the situations on Resource Sheets D and E, set the stage for discussion, and set a time limit. Have each group (if divided) report on their situation and discussion to the other group. Ask each group to invent another situation, perhaps based on real experiences, and present it to the other group for reaction.
5. Listen and React Participate in class discussion by expressing opinions about the information presented and presenting other ideas if possible.	5. Explain ways to prevent excessive drinking at a party, emphasizing the danger of mixing drinking with driving. Ask for ideas about other ways.
6. Film or Discussion Watch the film or participate in class discussion. Take notes and develop a check list or guidelines for defensive driving.	6. Show a film on defensive driving or lead the class in group discussion on defensive driving techniques that can help avoid problems caused by drivers impaired by alcohol or other drugs.
7. Guidelines Work in teams to develop guidelines to follow when you or your friends drink and have to drive.	7. Divide students into teams and assign them to the task of developing guidelines. Have teams report to the rest of the class and combine the best of their guidelines into a comprehensive list.

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Students	Teacher
8. Group Discussion Discuss the attitude of society toward entertainment figures who frequently portray drunks. Does this attitude cause problems for persons who take seriously the responsibility for keeping drunks, both friends and strangers, from driving? Are attitudes toward drug users the same? If not, why do you think there is a difference? Is the problem of keeping drug-affected people from driving the same as for alcohol users?	8. Lead the class in group discussion.

Resource Sheet D

Situation:

It is past midnight when you get a phone call from a friend. Your friend is drunk (or stoned) and needs a ride home. It is obvious from the way your friend sounds that this is true.

Several thoughts run through your mind: Should you tell your parents? Isn't there someone who could take your friend home? Is your friend really that bad off?

Questions for Discussion:

1. What would you do?
2. What do you think of the friend who called?
3. How might the friend react if you refused?
4. How would you describe the meaning of "friend"?
5. How would your parents react to your friend's request? Would they respond differently if your friend were taking drugs than if your friend were drinking? (Write your answer then ask them.)
6. Would you call a friend in this situation?

Resource Sheet E

An Issue for Discussion:

Minding Your Own Business vs. Helping Those in Need

Some say that people are basically selfish. They say that if you don't watch out for yourself, no one else will. The key to success, they say, is to "mind your own business."

Others say that people need to stick together and help one another. They say that we should "help those in need."

How do you feel about these ideas? Talk about the following situations to help clarify your feelings.

Situations:

What would you do in each of the following situations?

1. You are at a party where someone is very drunk and sick.
2. You are with some friends. One of them has had too much alcohol or another drug to drive safely but is planning to drive home anyway.
3. You are with a group of people with whom you would like to be friends. Two of them try to persuade a third friend to take some liquor from his or her parents' supply cabinet.
4. You are with a group of people with whom you would like to be friends. Someone in the group is passing out unidentified pills and everyone is taking some.
5. One of your friends seems to be drinking more and more. Every time you see this person he or she has had something to drink.
6. One of your friends is smoking pot or taking pills more and more and is losing interest in other activities.
7. Some of your friends suggest "spiking" the soft drinks of the nondrinkers at a party.
8. Some of your friends want to dust the potato chips at a party with some unidentified powder.

Evaluation for Lesson 5

1. Ask students to write a paragraph describing the psychological and behavioral effects of alcohol that have implications for the driving task, citing evidence of these effects.

2. Make arrangements for students to visit an elementary or junior high school for the purpose of informing younger students about the effects of alcohol on the functioning of the eyes. Observe their preparation for this assignment.

3. Have students make a list of things they would do to avoid the consequences of drunk or drugged driving.

4. Have students prepare a list of guidelines to follow when giving a party or being a guest at a party to prevent excessive drinking among guests. The list can be displayed or distributed among students.

5. Have students describe in writing, techniques of defensive driving that can help to avoid accidents with intoxicated drivers.

6. Have students write a brief statement expressing their attitudes toward excessive drinking or drug use at social gatherings and identify ways to avoid problems associated with drinking, drug use, and driving.

7. Have students describe the possible effects of stimulants, depressants, and hallucinogens on driving skills.

Supplementary Readings for Lesson 5

1. Girdano and Girdano. *Drug Education: Content and Methods*. Reading, Mass.: Addison-Wesley Publishing Company, 1972.

2. Indiana University. *Drugs and Driving: A Research Review*. Washington, D.C.,: U.S. Department of Transportation, NHTSA, 1975.

   An extensive, methodical report and discussion of drugs and driving.

3. Hames, Lee N. *Mixing Alcohol and Gasoline—Safely*. Paper presented at Fourteenth Annual Conference of American Driver and Traffic Safety Education Association, National Education Association, 1970. Lee N. Hames, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

   Discusses a wide range of topics regarding alcohol and driver education: alcohol and blood level, the roles of the schools in dealing with the problems, and specific suggestions for conducting alcohol and drug education in schools. A short but stimulating treatment of the topics. Teachers and administrators may use the paper as a source to gain some background in planning alcohol and drug education.

4. National Highway Traffic Safety Administration. *Friends Don't Let Friends Drive Drunk*. Washington, D.C.: U.S. Department of Transportation.

   Suggests tips on how to arrange a party with regard to alcoholic beverages and concerns for safety of guests driving home.

5. National Highway Traffic Safety Administration. *Young People and Alcohol*. Washington, D.C.: U.S. Department of Transportation.

   This pamphlet contains a reprint of an article from *Alcohol Health and Research World*, Summer 1975, on use and abuse of alcohol and preventive measures to curb traffic accidents resulting from drinking drivers. Also describes treatment problems in rural areas.

6. National Safety Council. *Alcohol and Traffic Accidents*. Chicago, Illinois: National Safety Council.

   Discusses effects of alcohol on the body and driving habits and the legal aspects involved. Also suggests possible guidelines to prevent traffic accidents. Additional sources of related information are provided.

7. University of Wisconsin. *Drug Use and Highway Safety: A Review of the Literature*. Washington, D.C.: U.S. Department of Transportation, NHTSA, 1971.

   A thorough, balanced review of literature about drug use impact on highway safety.

Lesson 6

Alcohol, Other Drugs, the Law, and Insurance

Lesson Goal: Students will understand Ohio laws regarding a DWI conviction and be able to cite the effects of such a conviction on insurance rates.

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A. Intoxication and the Law

Objective: Students will describe three possible means by which a person could be arrested for DWI.

Content:

Most states, including Ohio, have enacted laws which prohibit drivers who are under the influence of alcohol or controlled substances (other drugs). Appendix F presents a summary of laws and penalties related to drug offenses.

A BAC of .10 percent or higher is considered prima facie (self-evident) evidence of being under the influence of alcohol. This is considered to be presumption of legal intoxication and can result in a driving while under the influence (DWI) conviction.

With supporting evidence, persons can be convicted of DWI for driving with a BAC as low as .05 percent.

Many offenders who are picked up for DWI were initially stopped for a minor violation and, because of the condition of the driver, there was evidence enough for a possible DWI conviction.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 6: 1, 2, and 3 (pp. 110-111).

Evaluation:

Use evaluation item 1 (p. 113).

B. Ohio's Implied Consent Law

Objective: Students will describe Ohio's Implied Consent Law.

Content:

Like most other states, Ohio has an Implied Consent Law. This law stipulates that, by obtaining a driver's license, an individual has implicitly consented to submit to a chemical test of blood alcohol concentration upon arrest for driving while intoxicated.

The officer making the arrest must have reasonable grounds, such as reckless or careless driving, for believing that the person is driving under the influence of alcohol.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 6: 1 and 3 (pp. 110-111).

Evaluation:

Use evaluation item 2 (p. 113).

C. Arrest for Driving while under the Influence (DWI)

Objective: Students will describe what happens during an arrest for DWI.

Students will describe the penalty for refusal to take a breatholyzer test.

Content:

People arrested for DWI are first advised of their rights. Then, the drivers are advised that they have the right to take or refuse to take a test for blood alcohol concentration.

1. The Breatholyzer Test

The breatholyzer test, a chemical test commonly used to determine BAC, is easy to administer and is accurate. It protects the innocent as well as detecting the guilty. The instrument measures BAC simply by analyzing breath exhaled from the lungs of the driver.

2. Other Tests

A driver arrested for DWI can demand that other BAC tests be administered by a physician, chemist, technician, or other qualified person. The additional tests, which are admissible in court as corroborative evidence, must be made within two hours from the time of arrest and must follow those conducted at the direction of the officer making the arrest.

3. Refusal of a Chemical Test

Refusal to take a chemical test to determine BAC can result in suspension of the driver's license for six months. This possible suspension is independent of a conviction of DWI in court.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 6: 3, 4, 5 (pp. 110-111).

Evaluation:

Use evaluation items 3 and 4 (p. 113).

D. Conviction for Driving while under the Influence (DWI)

Objective: Students will list the penalties and other costs of a DWI conviction.

Content:

After an arrest is made for DWI, the case goes to court. A conviction for DWI in Ohio will result in the following court penalties:

1. A maximum court fine (first offense) of $1000.00.
2. Imprisonment in the county jail or workhouse for no less than three days and no more than six months.
3. A mandatory minimum 30-day license suspension; maximum suspension of three years.
4. A record of the conviction sent to the Bureau of Motor Vehicles to be put on your driving record.
5. Six points assessed on your driver's license.

The Bureau of Motor Vehicle (BMV), after receiving notification of the DWI conviction, imposes its own penalties:

1. An assessment of 6 points against the driver's record. Ohio has a point system for motor vehicle violations. If 12 points are accumulated within two years, the driver's license is suspended for six months. Additional information on the point system is provided under "Supplementary Readings for Lesson 6."
2. A requirement that the driver file for financial responsibility insurance to be held for three years. If the insurance is not filed, the driver's license is suspended for three years.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 6: 1, 2, 3, 4, 5, and 7 (pp. 110-111).

Evaluation:

Use evaluation items 5 and 6 (p. 113).

E. Insurance

Objective: Students will describe the estimated cost of a DWI conviction and the effect on insurance rates.

Content:

Under Ohio's "Financial Responsibility Law," anyone convicted of DWI must file proof of special high-risk insurance coverage and maintain that coverage for three years. Rates vary, but the average premiums will go up by 300 percent or more, and stay there for the full three years. If a driver does not buy the insurance or drops it, the state will "drop" that person's privileges for three years.[7]

According to the Ohio Department of Highway Safety, the cost of a DWI conviction averages $3,500 as follows:

Maximum court fine (first offense)	$1,000
Mandatory high-risk insurance	$2,000
Legal fees and court costs (average for DWI jury trials)	$ 500
	$3,500

The financial insurance stigma can last for five years.

Suggested Learning Activities:

Select from Suggested Learning Activities for Lesson 6: 1 and 6 (pp. 110-111).

Evaluation:

Use evaluation items 4, 5, 6, and 7 (p. 113).

[7] "If You're Convicted of DWI...," (Columbus, Ohio: Ohio Department of Highway Safety, funded by the National Highway Traffic Safety Administration, U.S. Department of Transportation).

Suggested Learning Activities for Lesson 6

Students	Teacher
1. Film and Discussion Based on the content of the film, discuss problems associated with drinking and driving. Stress the legal and financial consequences of driving while intoxicated.	1. Show any of these films: • *The DWI Decision* • *None for the Road* • *A Time for Decision* • *The Bottle and the Throttle* Lead discussion of the film.
2. Group Discussion Discuss different aspects of penalties for drunk driving. Review the brain functions affected at successive BAC levels (Lesson 2) and arrive at conclusions regarding the fairness of the .10 percent DWI cut-off point. Is the law too severe? To lenient? Why? Would you recommend that legal intoxication be set lower or higher than .10 percent? How would the changes affect traffic safety? How would they affect insurance rates?	2. Lead the discussion of DWI penalties.
3. Class Speaker and Discussion: Arrest Listen to speaker and ask questions to clarify any misunderstanding about DWI arrest.	3. Ask a member of the Ohio State Highway Patrol or the municipal police to speak to the class about the procedures of a DWI arrest. The presentation should include such points as the signs an officer looks for in identifying a drinking driver, the usual behavior of a drinking driver when stopped, the problems with trying to refuse a breatholyzer test, the possible changes in attitude that a person might exhibit after sobering up and appearing in court.
4. Class Speaker and Discussion: DWI Consequences Listen to the speaker and ask questions to clarify understanding of court and BMV penalties and education of drinking drivers.	4. Ask a local judge, a person from the Bureau of Motor Vehicles, or a staff member from a DWI school to speak to the class about local problems caused by drinking drivers, the way drivers are usually dealt with, or the problems and procedures in trying to educate and change the attitudes of drinking drivers.

Students	Teacher
5. Research and Discussion Research Ohio's point system by consulting the Ohio Revised Code, with the help of the Bureau of Motor Vehicles or the Ohio Department of Highway Safety, to find what offenses can accumulate points and the impact and results of point accumulation. Discuss findings in class.	5. Assign the research project and arrange for availability of Ohio Revised Code references and consultation with the agencies noted. Students will find that just one DWI conviction and the resulting 6 points may put their right to drive in jeopardy. Discuss with students the comparative "risks" of avoiding drinking while driving (social embarassment in admitting inability to drive, abstinence, and so forth) as opposed to loss of driving rights and other penalties for drunk driving.
6. Class Speaker and Discussion: Insurance Listen to the speaker and ask questions to clarify understanding of the consequences of DWI on insurance rates and insurability.	6. Invite a spokesperson from an insurance company to explain to the class what happens when a policyholder is convicted of DWI and the reasons for the company's actions. Ask the speaker to focus on what this can mean to young people whose premiums are already higher than those of other people.
7. Role Play and Discussion Volunteers role play the situations on Resource Sheet F. Following the scenes, have other students ask questions about the attitudes motivating the actions portrayed and discuss any different reactions they have to the situations. If desired, scenes may be replayed by other students having different ideas or approaches.	7. Divide the class into role play teams or assign actors within the class or request volunteers. Distribute Resource Sheet F (p. 112). Act as resource person to role play teams. Summarize the role play scenes and ensuing discussions before adjourning the class.

Resource Sheet F

Role Play Situations

1. A 35-year-old person is brought before the court on a DWI charge. He (she) is the father (mother) of two children and holds a respectable job. The person's spouse is present, angry because the breatholyzer test wasn't "fair." The driver was convicted on another DWI charge eight months ago. What would the driver say? What does the spouse contribute? What should the judge do in this case?

2. A 45-year-old person is brought before the court on a DWI charge. This driver, who is a city official, was driving while intoxicated and caused a serious accident in which he or she was not injured. This is the person's first DWI arrest, but several other traffic offenses appear on his or her record. What will the defendant probably do in this case?

3. A 20-year-old is charged with DWI. This person is an honor student at the university and has no previous record. The driver was arrested for running a stop sign at 1:00 a.m. What should the judge do in this case?

Evaluation for Lesson 6

1. Ask students to describe three possible ways of being arrested for DWI. Or, on the basis of Suggested Learning Activity 1, 2, or 3 for this lesson, assess the students' understanding of legal intoxication.

2. Ask students to describe Ohio's Implied Consent Law.

3. Ask students to describe procedures for a breath test usually carried out by police officers and the legal actions involved if one refuses to take a test.

4. Ask students to write a brief statement describing their attitudes toward the law as it relates to drunk drivers and traffic safety.

5. Ask students to list the penalties of a DWI conviction.

6. Have students list the possible "costs" of a DWI conviction:

   - financial (fine, loss of pay due to imprisonment, necessity of filing for financial responsibility, higher insurance rates)
   - job security (loss of job due to imprisonment or loss of transportation)
   - inconvenience (loss of license, time spent in court, time spent in jail, time spent in DWI classes)
   - emotional costs (embarrassment over court appearance, jail experience, arrest record; emotional strain of accumulated points jeopardizing license)

7. Have students write a brief statement describing the effect of a DWI conviction on insurance rates and their attitudes toward this reaction by insurance companies.

Supplementary Readings for Lesson 6

1. Ohio Department of Highway Safety. *Ohio Driver's Handbook*. Columbus, Ohio: Ohio Department of Highway Safety, 1978.

2. Ohio Insurance Institute. *Ohio's Motor Vehicle Point System...and How It Affects You*. Columbus, Ohio: Ohio Insurance Institute, 1976.

   Excerpt:

   Point System for Motor Vehicle Violations

   6—driving while the operator's license is under suspension

   6—operating vehicle without the owner's consent

   6—homicide by vehicle

   6—driving while under the influence of alcohol or drugs

   6—leaving the scene of an accident

   6—fleeing a police officer

   6—engaging in felony while using a motor vehicle

   6—drag racing

   4—reckless operation

   2—driving in violation of a restriction imposed by the Registrar

   2—speeding

   2—all other moving violations

   If you accumulate 12 or more points within two years, your license shall be suspended for six months.

   WARNING: If you are convicted of driving while your license is under suspension for this offense, you may be FINED not more than $500.00 and sent to JAIL for 30 days to 6 months.

   When you accumulate ½ or more of the total number of points needed to suspend your license, you are to receive a warning letter notifying you of your status.

Other Related Driver License Laws:

When you accumulate more than 7 points, you shall be required to take a license examination. If you are under 18 years of age and have been convicted of three separate violations in any two-year period, your license shall be revoked.

If you are convicted of driving while your license is under suspension, your certificate of registration and license plates shall be impounded.

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A. Resources

1. Films Available from Ohio Department of Health (Health Education)

As a resident of Ohio, you may borrow films without charge. The Ohio Department of Health pays for mailing the films to you, and you pay for the cost of returning them.

For your convenience in returning the films, the Department has addressed the reverse side of the mailing card sent with each film.

To order a film, write to:

Ohio Department of Health
Health Education
450 East Town Street
Columbus, Ohio 43216
Telephone: (614) 466-4626

Address for returning or picking up films is:

Ohio Department of Health
266 North Front Street
Columbus, Ohio 43215

Film Policies

Due to the large number of requests for our films, it is necessary to adopt the following film loan policies:

1. Health Education reserves the right to limit the number of films to one film per topic for each semester.
2. Films cannot be scheduled more than one year in advance.
3. It is recommend that one or more alternative selections per topic be provided when ordering a film.
4. Films are scheduled for only one day unless otherwise stipulated. Return films immediately after use. Prompt return is essential in order to avoid cancellations.

No films are mailed during the Holiday Season, December 11 to December 31.

A. Films on Alcohol

Alco Beat (1968) 12 minutes, Color, Jr. High, Sr. High, Adult

A film which shows the effects of drinking and driving. Young people drive through an obstacle course. Then, after a carefully controlled cocktail party, they again driver over the same course.

Alcohol: A New Focus (1972) 17 minutes, Color, Jr. High-Sr. High

The film opens with a 19th century temperance debate between a fiery "Wet" and equally zealous "Dry." As those men opt for the viewer's allegiance, it is seen that the

alcohol question is ageless and unresolved. Host-Narrator James Brolin acts as mediator. The audience is assured that extreme opinions are neither practical nor accurate. Common sense based on knowledge proves to be the best guide.

Alcohol and You (1969) 28 minutes, Color, Jr. High

This film examines the reasons why 80 million Americans drink and why 1 out of every 15 of them becomes an alcoholic. It attempts to make the viewer think before drinking, providing a barrage of facts concerning alcohol, its use, and abuse. It points out that young people are growing up in a society where seven out of every ten adults use alcohol. It shows generally accepted uses of alcohol—at a family meal, at a wedding reception, at an adult party where alcohol is not the center of fun. It also presents several examples of the harmful uses of alcohol. Leading authorities in the treatment of alcoholism list characteristics and warning signs of alcoholism..

Alcohol and Young People (1973) 13 minutes, Color, Jr. High-Sr. High

Five teen-agers (two boys and three girls aged 14-19) who are not actors talk about their true personal experiences with alcoholism. They explain how they started, why they continued, and why drinking did not prove to be a solution to their problems of loneliness, lack of self-confidence, feelings of inadequacy, and inability to function socially. The final emphasis is on seeking help. An excellent film for teen-agers.

Alcohol (1969) 5 minutes, Color, Jr. High, Adult

This film presents a concise picture of alcohol and its use in American society today. It provides a brief explanation of the physiological reactions to alcohol and then moves into a brief explanation of how alcohol is used by various people. It ends with a statement that most Americans do not have strong ideas about alcohol use.

Alcohol, Drugs, or Alternatives (1976) 25 minutes, Color, High School, College, Adult

This is an exploration of alternatives to people's dependence upon drugs and alcohol. This film tells it as it is, documenting observations from "half-way house" residents who admit the alternatives aren't easy but feel that the potential personal rewards are worth the battle. Discussion questions include: How do feelings of inadequacy influence a person's life and who is responsible for them—parents, peers, teachers? How do people overcome a negative self-image and arrive at a more nearly accurate appraisal of their own worth? What if everyone else sticks a carrot in his or her own ear and you don't want to—why do it? Some positive techniques are presented as substitutes for dependence upon artificial stimulants or depressants. Hosted by Christopher George and Tommy Smothers.

Alcohol: The First Decision (1973) 9 minutes, Color, Late Elementary, Jr. High

Young people are confronted with invitations to drink at every turn. They see their parents drink. Newspapers, magazines, and billboards are filled with advertisements for liquor. Alcoholism is made a subject for levity on radio and television. In this milieu, students are faced with the need to make their own decisions about drinking.

Alcohol: How Much Is Too Much? (1975) 71 minutes, Color, Junior High, Senior High

This film uses a variety of techniques, such as demonstrations and animations, to provide the student with a lasting regard for the potent effects of alcohol. Especially suitable for junior and senior high levels, where peer group pressure to drink is considerable.

The Alcoholic within Us (1973) 28 minutes, Color, Jr. High and Sr. High

Teen-agers act out an original drama in which each portrays an emotion that is within the alcoholic—insecurity, loneliness, resentfulness, guilt, and so on. The "emotions," forced to choose between maturity and immaturity, chose the latter and the consequences are depicted. Play is narrated by the author, a recovered teen-age alcoholic.

The Alcoholism Film (1973) 23 minutes, Color, Sr. High, Adult

A documentary look at factors that characterize the alcoholic in today's society. A 15-point check list permits the individual viewer to determine whether or not he or she is a potential or actual problem drinker. Alcoholism is presented within the spectrum of diseases which can be diagnosed and treated. The alcoholic is not restricted to any race, creed, color, sex or socioeconomic group. For the one out of ten who needs help, the first step is to recognize and admit that a problem exists. Rod Serling is spokesman.

America on the Rocks (1973) 15 minutes, Color, Sr. High, Adult

The middle class is the target of this documentary on alcoholism and the point is effectively made. Narrator Robert Mitchum explains that alcohol is such a problem in this country partly because, as a society, we have no general ground-rules on drinking. Segments of subcultures, such as Orthodox Jews, make the point that where the role of alcohol is clearly defined with definite occasions for drinking and not drinking, alcoholism is rare.

Chalk-Talk (1975) Part I-45 minutes; Part II-22 minutes, Color, Jr. High, Adult

Father Joe Martin instructs the viewer in the effect that alcohol has on the human body, physically and psychologically. In the second reel, Father Martin reviews signs and symptoms related to alcohol abuse and alcoholism. This is a very good basic knowledge film for a group that is not aware of the basic effects and symptoms of alcohol on the human body.

Curious Habits of Man (1968) 14 minutes, Color, Sr. High, Adult

The scene is a noisy, adult cocktail party given by the parents of a boy who prefers to watch a TV program on animal life. The boy observes striking similarities between the behavior of the drinkers and raucous crows, a croaking frog, a sloppy hippo, and a laughing loon. As the animal imagery builds, a Don Juan wolf tangles with a jealous rhino husband, and the boy escapes into the night smiling at a wise old owl, like him a nondrinker. This film points out absurdities of some of our drinking habits. The comparisons made by the boy are material for discussion on the ways alcohol affects behavior.

Comeback (1975) 11 minutes, Color, Jr. High, Adult

This film presents the story of a driver who hits and paralyzes a child crossing the street. Cleared by the police and declared not at fault by his insurance company, the man grapples with his own guilt. Repeated attempts to explain his actions belie his words that everything is all right and highlights his need for others to understand his own sorrow.

Theme: Responsibility, forgiveness.

Drugs, Drinking, and Driving (1975) 18 minutes, Color, Sr. High, Adult

A factually researched film demonstrating the effects of drugs and drinking on one's ability to make fast, accurate driving decisions.

Hollywood Squares (1976) 27 minutes, Color, Jr. High, Adult

This film follows the format of the TV show "Hollywood Squares," hosted by Peter Marshall. All of the questions deal with beverage alcohol, use and abuse. This is an extremely entertaining film in addition to being very educational and informative. This film is a very good lead into a discussion about alcohol and its uses.

Ninety-Nine Bottles of Beer (1973) 23 minutes, Color, Jr. High and Sr. High

This film is nonjudgmental: it simply relates actual experiences and feelings of young people as they relate to alcohol. As a result of seeing students who have become alcoholic individuals, an understanding is gained as to how they feel and what they went through. The underlying psychological basis for involvement with alcohol and drugs is pointed out in a way that young people can understand.

Oscar (1976) 5 minutes, Color, Jr. High, Adult

The story of a black man, Oscar, who lives in the city and finally recognizes that his personal, family, and job problems are caused by his excessive drinking. Fortunately, Oscar finally finds the help he needs.

Other Guy, Part I and Part II (1971) 23 minutes, Color, Sr. High, Adult

This drama is based upon the life of an actual alcoholic person. The first part demonstrates how he grew from a social drinker, who needed alcohol to relax, into an alcoholic person. It helps the audience understand the destruction which followed in his home and business life. The second part briefly summarizes the first part and delves into possible treatment procedures.

Snort History (1975) 7 minutes, Color, Jr. High and Sr. High

This film deals with the problem of drinking and driving perceptions. A unique combination of animation and reality is employed to convey the film's message. Various problems that arise from drinking are protrayed with only music as the "narrator."

Social Drinker and the Anti-Social Driver (1975) 16 minutes, Color, Sr. High, Adult

Through statistical analysis of automobile accidents involving drinking drivers, this film substantiates the concept that it is not the problem drinker that is primarily responsible for most accidents on the road, but rather the social drinker.

Step from the Shadows (1974) 28 minutes, Color, Sr. High, Adult

This film tells the story of a 36-year-old mother of two children who is addicted to alcohol. The pressures on the family members and the roles they play in the mother's rehabilitation process are depicted. Modes of treatment and facilities are also demonstrated.

There's a Message in Every Bottle (1969) 30 minutes, Color, High School, Adult

Viewers can easily relate to the scenes, the settings, and the young people who portray this dramatic story, which focuses on discussing the problem rather than lecturing or scolding. The authorities who cooperated in researching this motion picture recognize that today's young people are intelligent: if they can be reached, it will be through reasonable argument. The film presents both sides of the story, the bad and good—the benefits of drinking, the problems, the facts, and the illusions.

Thinking about Drinking (1969) 14 minutes, Color, Jr. High and Sr. High

This film presents facts about alcoholic beverages that will help the viewer make decisions regarding their use. This film is open-ended: students and teachers are encouraged to discuss the use of alcoholic beverages on the body, the nervous system, and behavior.

To Your Health (1968) 10 minutes, Color, Sr. High, Adult

The World Health Organization presents this film in cartoons showing the effects of too much alcohol on an individual (circulating through the body and entering the brain with sad results). The "Why" of drinking and "How" of a person's conquest are the main theme of the film. (Non-commercial local telecasts.)

What Time Is It Now? (1969) 20 minutes, Color, Jr. High and Sr. High

A superb film that gets to the core of the questions, "When in life might it be appropriate to drink?" and "Is it ever appropriate for some people to drink?" This film is primarily concerned with teen-age drinking and possible consequences of such drinking. It does not preach or moralize but presents the problem in such a way that one is compelled to think about it. Excellent for a discussion starter in a comprehensive alcohol education program. Recommended for youth and adults alike.

A Time for Decision (1969) 29 minutes, Color, High School, Adult

The film shows how the family can find guidance in attaining a normal life, even though the alcoholic may continue drinking. Practical in its approach, the film focuses on a grave community problem to show how Los Angeles County stands ready with various resources, public and private, to provide hope and guidance to all victims of alcoholism. Those who use these facilities cease being part of the problem and become part of the solution.

B. Films on Drugs

Are Drugs the Answer? (1972) 20 minutes, Color, High School

The setting is a classroom in which Dr. Cohen discusses the drug scene and his reasons for leaving it and answers the questions of high school students. His informed, relaxed presentation serves as a model of effective communication with young people.

Beyond LSD (1969) 25 minutes, Color, Mature Youth and Adults

The film "goes beyond" facts related to drug abuse, in discussing the need for keeping communication open between generations. The ability to keep calm and listen to people without being distracted by mannerisms, speech or dress fads is emphasized. Good for stimulating thought and provoking discussion.

Get High on Life (1972) 10 minutes, Color, Upper Elementary, Secondary, Adult

Using the lyric story line and music of the younger generation, the film protrays what there is in life to enjoy—or, as the young people say, "get high on"—without the use of artificial stimulants. The film encompasses a day from dawn to dusk, with each period of the day corresponding to a period of life from birth to old age.

Hey Baby (1973) 25 minutes, Color, Middle and Upper Grades

This film features preadolescent children representing a fairly good cross-section of racial, religious, and ethnic groups. The children come to their own casual theories regarding drug addiction and abuse and, in general, present some very exciting and stimulating ideas. Most importantly, they are children with whom preadolescent audiences can identify and empathize. (One of the basic premises of the film is that children talking to children is an effective device for the communication of ideas.)

Holy Smoke (1971) 8 minutes, Color, Grades 5-7

This film is based on student ideas—what students themselves would put into a film on drugs if they were making it. The young need to know a world that makes sense, a world where reality itself is interesting and even exciting, and where they can feel at home with friends and themselves. On this foundation can be built information and guidance programs that will enable individuals to build the self-discipline needed to control drug use.

Perfect Drug Film (1972) 32 minutes, Color, General Public

If a perfect drug were created, the scene depicted in this film might occur. A brief history of the use and abuse of chemical substances is explained. The film subtly but powerfully makes a point: drug use may be a personal decision, but it is a decision that will affect more persons than the user.

What Do Drugs Do? (1972) 15 minutes, Color, Elementary

This is a film designed to inform elementary school students of the good and bad actions of drugs and chemicals on the body, the risks associated with drugs, and the

dangers of drug abuse. The film emphasizes that drugs should be respected both for their beneficial qualities and for their potential harm.

Who Cares? (1973) 15 minutes, Color, High School, Adult

This film, narrated by David Hartman, is a documentary overview of the varied drug programs now operating in Ohio. It shows programs of training, education, and consultation available through the State to Ohioans.

Your Amazing Minds (1970) 15 minutes, Color, Upper Elementary, Jr. High

The theme of this film is that young people must be educated and warned about drugs before they are exposed to them; they must be made aware of the possible serious consequences of misusing drugs; and they must learn the value of their most precious possession—their amazing minds.

2. Filmstrips Available from Ohio Department of Health (Alcoholism Division)

To order the following filmstrips, contact:

Ohio Department of Health
Alcoholism Division
450 E. Town Street
P. O. Box 118
Columbus, Ohio 43216

Alcohol: $50,000 Habit (with 33⅓ r.p.m. record) 20 minutes, Color

This filmstrip contains a discussion by knowledgeable young people regarding drinking habits and the positive and negative potentials of alcohol consumption, an excellent, frank discussion for young people.

Alcohol: The Social Drug/The Social Problem (with record) Part I - 8 minutes; Part II - 12 minutes; Color, Young Adult, Adults

This filmstrip examines the medical and psychological aspects of alcohol use and abuse and the role this drug plays in American social life. Both youth and medical experts voice their opinions.

Alcohol: Your Decision (with record) Part I - 9 minutes; Part II - 10 minutes, Color

This filmstrip provides students with enough information to enable them to make an honest appraisal of their own attitudes toward drinking before peer group pressure becomes too great.

High on Life (with record) Part I - 9 minutes; Part II - 10 minutes; Color, Jr. High and Sr. High, Teachers, Civic Groups

This filmstrip examines what youth are looking for in drugs, how they can achieve this excitement and escapism in more natural and constructive ways, what are some possible alternatives to drug use.

A New Look at the Old Sauce (with record) 20 minutes, Color, Jr. and Sr. High

This is a cartoon filmstrip that discusses the history of alcohol, its use, and why people turn to it. The accompanying record provides appropriate "mod" generation music.

3. Films Available from Ohio Department of Highway Safety

To obtain the following films, contact:

Ohio Department of Highway Safety
Film Library
240 Parsons Avenue
Columbus, Ohio 43205
Phone - (614) 466-4775

Alcohol and Red Flares 20 minutes, Color

This hard hitting docu-drama portrays in sharp relief the hazards of drunk driving. This film's message is dramatized by showing what happens when young Mike Edwards and his wife leave a party where he has had too much to drink and is subsequently involved in a traffic accident. Mike's humiliating arrest for drunk driving and his experience in traffic school, where he shares the experiences of others in the class, make absorbing educational viewing. Whether Mike learns his lesson is held in suspense until the end of the film.

Driving and Drinking 15 minutes, Color

The viewer is alerted to the personal problems of drinking as well as those associated with driving while drinking. The pleasurable aspects of good driving are contrasted with the social stigma of being dubbed a "drunken driver."

Driving and Drugs 15 minutes, Color, Youth and Adult

This forthright film clarifies misconceptions about drugs as related to driving.

The Bottle and the Throttle 10 minutes, Color

Using an entirely new approach, the age-old myth which says you have to be drunk before your driving ability is materially impaired is dispelled. Designed to make a lasting impression upon the young people of the community.

Drugs, Drinking, and Driving 18 minutes, Color

Physiological and psychological experiments at U.C.L.A. demonstrate the effects that alcohol and drugs can have on driving. Animation shows effects on the human nervous system.

Go Sober and Safe 28 minutes, Color

This film shows driving test results after six skilled drivers are served various amounts of alcohol.

Just One 22 minutes, Color

This film summarizes the medical findings of the effects of alcohol on the body.

Silent Weakness 28 minutes

This is a case study of the use of intoxication tests in traffic court.

4. Additional Films from Other Sources

A. Alcohol Films

Drink, Drive, Rationalize 26 minutes, 16 mm, color

A classroom film version of the popular *Sure, Mac, Sure* T.V. spots which spoofed common misconceptions or rationalizations about drinking and driving.

Supplier: Local AAA club or AAA Foundation for Traffic Safety, 8111 Gatehouse Road, Room 212, Falls Church, Virginia 22042

Film Library
Ohio Traffic Safety Education Center
1960 Kenny Road
Columbus, Ohio 43210

Driving while Intoxicated (1974) 28 minutes, color, Jr.-Sr. High

Presents real life case histories produced under the advisement of educators and alcoholism educators. Provokes post-viewing discussion leading to value clarification. From The Traffic Trigger Films Series.

Supplier: Professional Artists, Inc.
P.O. Box 8003
Stanford, California 94305

The DWI Decision 25 minutes, color

The purpose of this film is to help people of all driving ages examine their attitudes toward alcohol used in traffic and other settings and to aid them in making good "adult" decisions about its use. The major premise of the film is that far too many people drink and drive; the audience is asked to look at alcohol and how it affects the decision-making process.

The film is divided into three sections, each one ending with a question and a time for discussion. The sections include:

Section 1: School information and misinformation

Section 2: The psychological effects of alcohol

Section 3: Decision-making

The most meaningful section of the film is in Section 2, in which the question "What are some adult decisions?" is preceded by the use of a Transactional Analysis (TA) Summary indicating what the use of alcohol does to the parent, adult, and child ego states. The sole purpose of TA in this context evokes responses from the audience about the three ego states.

Supplier: Visucom Productions, Inc.
P.O. Box 5472
Redwood City, California 94063

Film Library
Ohio Traffic Safety Education Center
1960 Kenny Road
Columbus, Ohio 43210

For Those Who Drink 37 minutes, 16 mm, Black/white

Dr. Gordon Bell discusses the slowness of the development of alcoholism and the changes in personality as it develops. He describes the physiological effects of alcohol, especially on the nervous system and the liver, and explains the psychological and emotional needs of alcoholics.

Supplier: L.L. Cromien and Co.
Buffalo, N.Y. 14202

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How Drinking Affects Driving 22 minutes, color

To show the effect of alcohol on driving ability, three professional and three street drivers navigate a precision test course, first sober, then after drinking. Comparisons of performances demonstrate that drivers with only .02 blood alcohol level upend twice as many of the cones used in the tests as when sober.

Supplier: Media Five Film Distributors, Dept. 86
1011 North Cole Avenue
Hollywood, California 90038

Cost: $245 (rent-$30/week)

How Much Is Too Much? 16 mm, color/sound

Graphically defines the concept of Blood Alcohol Concentration. Split-screen contrasts sober behavior with the effects of alcohol on coordination and balance.

Supplier: Bureau of Audio Visual Instruction
1327 University Avenue
Madison, Wisconsin 53700

Cost: $65.00 (rent $6.00)

None for the Road (1973) sound filmstrip cassette audio tape, color, 74 frames, Jr. High through college

Identifies the effects of alcohol, indicates human behavior resulting from drinking, and analyzes characteristics and performances of the drinking driver.

Supplier: Bumpa-Tel, Inc.
775 S. Kings Highway
Cape Girardeau, Missouri 93701

None for the Road (1962) 12 minutes, 16 mm, color, High school, college, adult

Considers what happens to an ordinary social drinker when behind the wheel. Tells the story of one man who found himself facing a year in jail because his blood was found to contain .15 percent alcohol after an accident.

Supplier: AIMS Instructional Media, Inc.
626 Justin Avenue
Glendale, California 91201

So Long Pal 20 minutes, color, High School Driver Education Courses, Driver Improvement Courses, Civic Groups, DWI classes

A narrative description is given of some events in the life of a drinking driver. The subjects included are drinking experiences, drinking and driving, arrest, prosecution, the DWI school, and repetition of the offense. The final outcome of this film is the death of the drinking driver and his family.

Supplier: Norm Southerby and Associates
1709 East 28th Street
Long Beach, California 90806

B. Trigger Films

A trigger film is an open-ended film which presents situations deliberately leaving a critical decision or problem unresolved. The purpose is to stimulate audience discussion and to generate alternative solutions or permit evaluation of the decision portrayed. A discussion guide is available from The Ohio Traffic Safety Education Center (OTSEC). All films are 16 mm, color, sound; may be purchased or rented ($6.00 each for rental).

The Plan (1.7 min), *Buzz* (5.4 min), *The Key* (1.0 min), *The Call* (0.7 min)—one film, four situations.

This film presents four related situations aimed at helping people resolve the problem created by drinking in a location that requires driving after drinking to go home.

Source: Film Library
Ohio Traffic Safety Education Center
1960 Kenny Road
Columbus, Ohio 43210

Free loan from OTSEC, pay postage only.

Supplier: Bureau of Audio Visual Instruction
1327 University Avenue
Madison, Wisconsin 53700

(608) 262-1644

Additional trigger films are:

Quarry (5.8 min)

A group of young people motorcycled to an abandoned stone quarry for a picnic. One young man, Mike, brooding about his problems, drinks too much. His date confronts him saying, "You can't drive me home like that!" But, she doesn't know how to operate a motorcycle. Now what?

Stan (2.5 min) and *Joe's Day* (5.5 min) one film

Stan is a problem drinker who recently had an alcohol-related crash resulting in a visit from his insurance agent who tells Stan his insurance will not be renewed. Stan denies he has any problems.

Joe has been convicted of DWI and must control his drinking; yet he is repeatedly confronted by drinking situations. How does and can he handle these situations?

Bill James (4.6 min), *Tom* (3.5 min), *The Invitation* (1.1 min), *The Dilemma* (1.0 min), *Kitchen* (3.3 min), fine discussion film.

Bill James: Two patrolmen hear on the police car radio the description of a car involving a hit-and-run accident, Bill James' car. While the patrolmen search for Bill, the audience meets the people closest to Bill. All are aware Bill has a problem, yet each protects Bill.

Tom, alone at a bar, has had a lot to drink. A young couple, friends of Tom, are recognized by Tom who insists they take a ride in his new car. Tom decides to drive off with or without them. They are uncertain about what to do.

The Invitation—One of two alternative endings to the film "Tom."

Kitchen: A do as I say, not as I do, situation involving a family of four: mother, father, son, and daughter.

C. Free Films[8]

Many films are free. The only responsibility of the user is to take care of the film, return promptly and pay return postage and insurance—if required. To order films write on school letterhead and book well in advance (six to ten months).

[8]Source: *Educator's Guide to Free Films*. 38th annual edition (Randolph, WI. 53956: Educators Progress Service, 1978).

Driving, Drinking, and Drugs (31997) 16 mm, color, sound, 35 min

Presents the latest analytical laboratory results on the potential problems of driving while under the influence of alcohol or marijuana. The actual experiences of young volunteers in the test programs conducted in California are documented as well as their reactions and opinions before, during, and after the tests.

Modern Talking Picture Service
2323 New Hyde Park Road
New Hyde Park, N.Y. 11040

Flip Side (1969) 16 mm, 50 min, color

Takes the viewer into the drug twisted, psychedelic world of a portion of today's society with a coffee house called The Flip Side as it's setting. The lives of six young people are told, revealing their search for answers through a series of experiences in drugs, resistance to authority, sex, and the world of the hippie.

Gospel Films, Inc.
Attn.: Mr. Don Craymer
P.O. Box 455
Muskegon, Michigan 49443

Focus on Downers (1971) 16 mm, 15 min, color

Enables students to see people like themselves who are on their way to addiction, in situations that they themselves have been in and can identify with.

Cor-rell Communications Company
5316 Pershing Avenue
St. Louis, Missouri 63112

Focus on Heroin (1971) 16 mm, Sound, 15 min

This film, in full color, challenges the audience to find the heroin addict in a number of different ethnic and geographical settings. The movie points out that it's impossible to boil it down to an oversimplification such as one's appearance. Narration is by David Hartman.

Cor-rell Communications Company

Focus on LSD (1971) 16 mm, Sound, 15 min

This film, in full color, explores all the facets of LSD and the other psychedelic drugs now being used. The film is narrated by Tommy Roe.

Cor-rell Communications Company

Focus on Marijuana (1971) 16 mm, Sound, 15 min

This film, in full color, narrated by Tommy Roe, shows how intense peer pressure can be as it cuts across all socio-economic levels, from the New York City slums to the barrios of East Los Angeles to rural America to middle class and upper class.

Cor-rell Communications Company

Focus on Uppers (1971) 16 mm, Sound, 15 min

This film, in full color, focuses on a group of drugs (amphetamines, speed, etc.), which are rarely prescribed by doctors. It visually portrays the effects of uppers in a variety of situations. Narrated by Greg Morris.

Cor-rell Communications Company

High on the Campus (1971) 16 mm, color, 52 min

An authentic and highly dramatic presentation of the drug abuse problem. It communicates through line interviews with drug users and teens who have successfully beaten the habit.

Gospel, Films, Inc.

Hooks (1972) 16 mm, color, 30 min

Illustrates the hard fact that miracle solutions to problems can't be found in a pinch of powder, a bottle, a rainbow of pills, or a puff of smoke. Mike London hosts a "with-it" look at the contemporary scene of drug use and misuse from aspirin to LSD, from cough syrup to alcohol, and from tobacco to pot.

Department of the Air Force	Department of the Army
Check the audio-visual library at Wright-Patterson A.F.B. Must be requested on Air Force form 2018 available from the publications office.	Fort Knox, KY 40120. Must be ordered on special DA Form 11-44 available from Ft. Knox.

LSD (MN-105073) (1967) 16 mm, color, 37 min or 28 min

Tells how LSD was discovered, the dangers of its misuse, and its effects on the body. Specify which version (length).

Department of the Navy
Naval Education and Training Support Center
Commanding Officer
Atlantic Naval Station
Building Z-86
Norfolk, Virginia 23511

Subject to delays depending on navy commitments at the time.

5. Sources of Other Materials

The following is a list of agencies which provides a wide variety of alcohol information, most in pamphlet form, for little or no charge. Materials are available for both teachers and students. Most of the agencies publish catalogs of their materials.

(1) Publications Division
Rutgers Center of Alcohol Studies
New Brunswick, N.J. 08903

Popular, technical and nontechnical books, pamphlets, and reprints on all aspects of alcohol problems.

(2) Licensed Beverage Industries, Inc.
155 East 44th Street
New York, N.Y. 10017

Free articles on alcohol education and many pamphlets on various alcohol topics.

(3) Allstate Insurance Company
Allstate Plaza
Northbrook, Illinois 60062

Several drinking-driving publications.

(4) National Council on Alcoholism
2 Park Avenue
New York, N.Y. 10016

Various pamphlets and books on alcoholism.

(5) A.A. World Services, Inc.
P.O. Box 459
Grand Central Station
New York, N.Y. 10017

(6) Kemper Insurance Company
4750 Sheridan Road
Chicago, Illinois

Several drinking-driving pamphlets.

(7) American Medical Association
Department of Health Education
535 Dearborn Street
Chicago, Illinois 60610

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(8) Woman's Christian Temperance Union
State Headquarters
1444 E. Broad Street
Columbus, Ohio

or

Narcotic Education Bureau
National Woman's Christian Temperance Union
1730 Chicago Avenue
Evanston, Illinois 60202

Numerous films, books, booklets, pamphlets, charts, posters, and packets on drugs, alcohol, and safety education.

Filmstrips and motion pictures may be rented (for postage or for a small fee) from local, district, or state organizations of the Woman's Christian Temperance Union.

If there is no organization in your area or you are unacquainted with the personnel of the organization, you will receive information of what films are available and how to obtain them by writing to the above address.

(9) School and College Service
1730 Chicago Avenue
Evanston, Illinois 60202

A catalog of books, booklets, leaflets, visual aids, and other materials on various aspects of alcohol, drugs, and safety education for all grade levels can be obtained from the publisher.

B. Drug Classification Chart*

	Common Drug Names	Medical Use	How Taken	Duration of Effect	Short-Term Effects	Possible C.N.S.** Area Affected	Possible Long Term Effects	Effect When Combined With Alcohol
DEPRESSANTS								
Barbiturates	Amytal Nembutal Seconal	sedation and to relieve high blood pressure	swallowed or injected	4-8 hours	euphoria, sleepiness, peacefulness, poor coordination, mental disorientation	cerebral cortex, reticular formation	physical deterioration, possible coma, and death	possible coma and death from overdose, respiratory failure
Tranquilizers	Miltown Librium Equanil Valium	mild sedation and muscle relaxant	swallowed or injected	4-12 hours	drowsiness, peacefulness, fainting, vomiting, tremors	thalamus, reticular formation	chronic depression	increased disorientation, faintness, possible coma and death
Narcotic Analgesics	heroin paregoric codeine morphine meperidine	no medical use for heroin, other opiates relieve severe pain, bowel spasms, and coughing	swallowed or injected	4-6 hours	apathy, euphoria, stupor, loss of concentration	spinal cord, medulla, hypothalamus	constipation, loss of appetite, lifetime physical dependency, death from overdose, hepatitis and ulcers from use of needle, malnutrition	very hazardous, may cause coma and death from respiratory failure
Volatile Chemicals	glue, gasoline, aerosol sprays, benzene, paint and varnish thinners	none	inhaled	varies	short term euphoria, stupor, loss of concentration	medulla	permanent liver, kidney, and bone marrow (blood) damage; heart damage; death possible from asphyxiation or respiratory failure	
Alcohol (Ethanol)	whiskey, gin, beer, vodka, wine, some tonics and cough syrups	seldom prescribed	swallowed	2-10 hours	poor condition, slurred speech, loss of awareness	reticular formation and higher brain centers	cirrhosis of the liver, psychosis, malnutrition, nerve cell damage, lifetime dependency	

*Adapted from Drugs, Alcohol, Tobacco, & Human Behavior, Educational Research Council of America (Cleveland, Ohio: 1971), back cover.

** central nervous system

B. Drug Classification Chart (Continued)

	Common Drug Names	Medical Use	How Taken	Duration of Effect	Short-Term Effects	Possible C.N.S. Area Affected	Possible Long-Term Effects	Effect When Combined With Alcohol
STIMULANTS								
Amphetamines	Benzedrine Preludin Dexedrine Methedrine	fatigue, obesity, and depression	inhaled, swallowed, or injected	4-12 hours	excitement, loss of concentration, hyperactivity, possible agressiveness, and hallucinations	spinal cord, medulla, reticular formation	permanent psychosis, high blood pressure, heart attack, death from overdose	increased lack of judgment
Local Anesthetics	cocaine	local anesthesia	inhaled, swallowed, or injected	varies	euphoria, intense excitement, possible hallucinations, convulsions	spinal cord, cerebral cortex	malnutrition, severe mental deterioration	
HALLUCINOGENS								
Natural	marijuana hash	experimental: chemotherapy side effects and glaucoma	smoked, swallowed, or sniffed	4 hours or less	light euphoria with normal dose to hallucinations with heavier dosage	seems to act on the reticular formation (research is not complete)	not known	hazardous when combined with alcohol
	psilocybin mescaline (peyote)	none	swallowed or injected	4-12 hours	same as LSD	reticular formation		
Synthetic	LSD STP (DOM)	experimental	usually swallowed	up to 12 hours up to 4 days for STP depending on dosage	hallucinations, sensory distortion, euphoria, panic or depression, sense of expanded awareness	reticular formation	recurrent psychotic episodes, possible damage to chromosomes	

C. Ohio Drug Legislation Chart

(In Ohio courts the judge may suspend and place on probation a drug dependent or potentially drug dependent person if he or she follows court directive for rehabilitation, except in cases where probation is specifically denied by law.)

NAME OF DRUG	DRUG OFFENSES LEGISLATION (Revised code as amended November 21, 1975. Effective July 1, 1976).	
SCHEDULE I (excluding marijuana) and II, including the following:	2925.02	CORRUPTING ANOTHER WITH DRUGS [INCLUDING A MINOR]
Narcotics	.02 (C) (1)	1st offense: 7 years and up to $10,000 Subsequent offenses: 12 years and up to $10,000
Opiates	2925.03	TRAFFICKING OFFENSES
Opium Herion Morphine	.03 (C)	Aggravated Trafficking
Cocaine		SALE OF AMOUNT < bulk amount* 1st offense: 1-10 years and up to $5,000 Subsequent offenses: 2-15 years and up to $7,500
Hallucinogens		Manufacture for SALE 1st offense: 3 years and up to $7,500 Subsequent offenses: 5 years and up to $10,000
LSD Mescaline Psilocybin		POSSESSION of amount ≥ bulk amount, but < 3 x that amount 1st offense: 18 months and up to $5,000 Subsequent offenses: 3 years and up to $7,500
		SALE of amount ≥ bulk amount, but < 3 x that amount 1st offense: 3 years and up to $7,500 Subsequent offenses: 5 years and up to $10,000
		POSSESSION [for sale] of amount ≥ 3 x bulk amount 1st offense: 3 years and up to $7,500 Subsequent offenses: 5 years and up to $10,000
		SALE of amount ≥ 3 x bulk amount 1st offense: 5 years and up to $10,000 Subsequent offenses: 7-25 years and up to $10,000
		PROVIDE Funds for Purchase 1st offense: 7 years and up to $10,000 Subsequent offenses: 10 years and up to $10,000
	2925.11	DRUG ABUSE
	.11 (A)	OBTAIN, POSSESS, USE 1st offense: 6 months-5 years and up to $2,500 Subsequent offense: 1-10 years and up to $5,000
	2925.13	PERMITTING DRUG ABUSE
	.13 (A) & (B)	PERMITTING Drug Abuse 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,500
	2925.22	DECEPTION TO OBTAIN DRUGS
	.22 (A)	Deception to OBTAIN Drugs 1st offense: 6 months-5 years and up to $2,500 Subsequent offenses: 1-10 years and up to $5,000

*See "bulk amount" as defined in Ohio Revised Code 2925.01 (E).

C. Ohio Drug Legislation Chart (Continued)

	2925.23	ILLEGAL PROCESSING OF DRUG DOCUMENTS
	.23 (A)-E	ILLEGAL PROCESSING of Drug Documents 1st offense: 1-10 years and up to $5,000 Subsequent offenses: 2-15 years and up to $7,500
	2925.36	ILLEGAL DISPENSING OF DRUG SAMPLES
	.36 (A)	DISPENSING of Drug Samples [for use without the permission or supervision of a practioner] Offense: 6 months-5 years and up to $2,500
SCHEDULE III, IV, V, including the following: Stimulants Depressants Narcotic Antidotes Narcotic Preparation Fenfluramine	2925.02	CORRUPTING ANOTHER WITH DRUGS [INCLUDING A MINOR]
	.02 (C) (2)	1st offense: 3 years and up to $7,500 Subsequent offenses: 5 years and up to $7,500
	2925.03	TRAFFICKING OFFENSES
	.03 (D)	Trafficking in Drugs SALE of amount < bulk amount* 1st offense: 6 months-5 years and up to $2,5000 Subsequent offenses: 1-10 years and up to $5,000 Manufacture for SALE 1st offense: 1 year and up to $5,000 Subsequent offenses: 2 years and up to $7,000 POSSESSION of amount ≥ bulk amount, but < 3 x that amount 1st offense: 6 months and up to $2,500 Subsequent offenses: 18 months and up to $5,000 SALE of amount ≥ bulk amount, but 3 x that amount 1st offense: 1 year and up to $5,000 Subsequent offenses: 2 years and up to $7,500 POSSESSION [for sale] of amount ≥ 3 x bulk amount 1st offense: 18 months and up to $5,000 Subsequent offenses: 3 years and up to $7,500 SALE of amount ≥ 3 x bulk amount 1st offense: 2 years and up to $7,500 Subsequent offenses: 4 years and up to $10,000 PROVIDE Funds for Purchase 1st offense: 5 years and up to $10,000 Subsequent offenses: 7 years and up to $10,000
	2925.11	DRUG ABUSE
	.11 (A)	OBTAIN, POSSESS, USE 1st offense: up to 60 days and $500 Subsequent offenses: up to 90 days and $750.00
	2925.13	PERMITTING DRUG ABUSE
	.13 (A) & (B)	PERMITTING Drug Abuse 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,5000
Marijuana	2925.02	CORRUPTING ANOTHER WITH DRUGS [INCLUDING A MINOR]
	.02 (C) (3)	1st offense: 3 months and up to $2,500 Subsequent offenses: 6 months and up to $2,500

C. Ohio Drug Legislation Chart (Continued)

	2925.03	TRAFFICKING OFFENSES
	2925.03 (E)	Trafficking in Marijuana SALE of amount < bulk amount* 1st offense: 6 months-5 years and up to $2,500 Subsequent offenses: 1-10 years and up to $5,000 Manufacture for SALE 1st offense: 6 months-5 years and up to $2,500 Subsequent offenses: 1-10 years and up to $5,000 POSSESSION of amount ≥ bulk amount, but < 3 x that amount 1st offense: 6 months-5 years and up to $5,000 Subsequent offense: 1-10 years and up to $5,000 SALE of amount ≥ bulk amount, but 3 x that amount 1st offense: 1-10 years and up to $5,000 Subsequent offenses: 2-15 years and up to $7,500 POSSESSION [for sale] of amount ≥ 3 x bulk amount 1st offense: 1-10 years and up to $5,000 Subsequent offenses: 2-15 years and up to $7,500 SALE of amount ≥ 3 x bulk amount 1st offense: 6 months and up to $7,500 Subsequent offenses: 1 year and up to $7,500 PROVIDE Funds for Purchase 1st offense: 1 year and up to $7,500 Subsequent offenses: 2 years and up to $7,500
	NOTE: 20 grams or less	1st offense: up to $100 Subsequent offenses: up to 60 days and up to $500.
	2925.11	DPUG ABUSE
	.11 (A)	OBTAIN, POSSESS, USE 100 grams or more: up to 30 days and $250 Less than 100 grams: up to $100
	2925.13	PERMITTING DRUG ABUSE
	.13 (A) & (B)	PERMITTING Drug Abuse 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,500
DANGEROUS DRUGS	2925.12	POSSESSING DRUG ABUSE INSTRUMENTS
	.12 (A)	POSSESSION of Instrument for Administration or Use 1st offense: up to 90 days and $750 Subsequent offenses: up to 6 months and 1,000
	2925.13	PERMITTING DRUG ABUSE
	.13 (A) & (B)	PERMITTING Drug Abuse 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,500
	2925.21	THEFT OF DRUGS
	.21 (A)	OBTAIN by Theft 1st offense: 6 months-5 years and up to $2,500 Subsequent offenses: 1-10 years and up to $5,000

C. Ohio Drug Legislation Chart (Continued)

	2925.22		DECEPTION TO OBTAIN DANGEROUS DRUGS
		.22 (A)	Deception to OBTAIN Dangerous Drugs 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,500
	2925.23		ILLEGAL PROCESSING OF DRUG DOCUMENTS
		.23 (A)-(E)	ILLEGAL PROCESSING of Drug Documents 1st offense: 6 months-5 years and up to $2,500 Subsequent offenses: 1-10 years and up to $5,000
	2925.36		ILLEGAL DISPENSING OF DRUG SAMPLES
		.36 (A)	DISPENSING of Drug Samples [for use without the permission or supervision of practitioner] 1st offense: up to 90 days and $750 Subsequent offenses: up to 6 months and $1,000
	4729.51		POSSESSION (WITHOUT A PRESCRIPTION) OR SALE
			POSSESSION (without a prescription) or SALE 1st offense: up to 6 months and $1,000 Subsequent offenses: 6 months-5 years and up to $2,500
HARMFUL INTOXICANTS	2925.31		ABUSING HARMFUL INTOXICANTS (plastic cement, model cement, fingernail polish remover, gasoline, cleaning fluid, aerosal propellant, etc.)
		.31 (A)	OBTAIN, POSSESS, USE 1st offense: up to 30 days and $250 Subsequent offenses: up to 6 months and $1,000
	2925.32		Trafficking in Harmful Intoxicants
		.32 (A)	Dispensing or distributing to a MINOR 1st offense: up to 30 days and $250 Subsequent offenses: up to 60 days and $500
ALCOHOL (BEER & LIQUOR)	4301.22		RESTRICTIONS ON SALE OF BEER AND LIQUOR
		.22 (A)	SALE of beer to person under 18 or intoxicating liquor to person under 21. Offense: up to 60 days and $500
	4301.63		PURCHASE BY PERSON UNDER TWENTY-ONE (Beer purchased under 18 and intoxicating liquor under age 21) Offense: up to $100
	4301.64		CONSUMPTION IN MOTOR VEHICLE Offense: up to 30 days and $250
	4507.16		SUSPENSION OR REVOCATION OF LICENSE
		.16 (B)	UNDER THE INFLUENCE Offenses: (1) Suspension of license—30 days (not suspendable) —3 years or (2) Revocation of license and (3) Jail sentence of up to 6 months (suspendable except for 3 days)

NOTE: DRIVING while INTOXICATED or DRUGGED (ORC4511.1A)
Offense: up to 6 months and $1,000 (3 day minimum)
in addition to any penalties in 4507.16